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Journal

R.I.B.A. Programme 1946-47

R.I.B.A. arrangements for the Session 1946-47 are :—

Tues., 12 Nov., 6 p.m. Inaugural General Meeting. Address by the President.

Tues., 26 Nov., 6 p.m. General Meeting. *Aspects of Post-war Building Technique.* Richard Sheppard [*F.*].

Tues., 10 Dec., 6 p.m. General Meeting. *Heavenly Mansions. An Interpretation of Gothic.* John Summerson, F.S.A. [*A.*], Curator, Sir John Soane's Museum.

Tues., 14 Jan., 6 p.m. General Meeting. Prizes Deed of Award. Criticism.

Tues., 28 Jan., 6 p.m. General Meeting. *New Towns.* Professor W. G. Holford, B.Arch(Livpl.), M.T.P.I. [*F.*].

Tues., 11 Feb., 6 p.m. General Meeting. President's address to Students. Presentation of Prizes.

Tues., 25 Feb., 6 p.m. General Meeting. *Housing* (full title to be announced later.) Edward Armstrong [*F.*].

Tues., 11 March, 6 p.m. General Meeting. *Housing* (full title to be announced later.) J. H. Forshaw, M.C. [*F.*], Chief Architect and Housing Consultant, Ministry of Health.

Tues., 15 April, 6 p.m. General Meeting. Presentation of the Royal Gold Medal.

Tues., 6 May, 6 p.m. Annual General Meeting.

Conference on Fuel and the Future

So great has been the demand for tickets for this Conference, which is to be held from 8 to 10 October, that the available accommodation is fully booked up. The Ministry of Fuel and Power say that they cannot meet any further requests for tickets but would be glad if persons who find they are unable to attend would return their tickets.

One change has been made in the speakers. Mr. C. C. Handisyde [*A.*] is now to speak in the section " Domestic Heating Requirements " following Sir Reginald Stradling [*Hon. A.*]. Mr. Handisyde's place as first speaker on the technical implications of new appliances will be taken by Mr. J. A. Pinckheard [*A.*].

The Assistant Secretary R.I.B.A.

The Council regret to announce that Mr. Gerald Essame, O.B.E., is relinquishing the post of Assistant Secretary R.I.B.A, Mr. Essame has been invited to accept a post as Administrative Officer on the staff of the newly-constituted National Coal Board. In view of the importance of this post the Council feel reluctantly compelled to release Mr. Essame.

A.S.B. Lectures 1946-47

The first three Architectural Science Board Lectures for the forthcoming Session have been fixed and are:

9 Oct. " Technical Investigations in Germany," by Mr. M. Hartland Thomas, M.A. [*F.*].

6 Nov. " New Light in Old Buildings," by Mr. S. Anderson and Mr. E. H. Penwarden.
Joint meeting with Illuminating Engineering Society.

4 Dec. " Health and Welfare in Factories," by Mr. H. G. Maule, Factory Inspectorate Staff.

A synopsis of the Lecture by Mr. Hartland Thomas is given in " Notes and Notices " on page 519. Mr. Hartland Thomas was the leader of a team sent out by the Ministry of Works to Germany to study German technical building methods.

A.S.B. Lectures are held at the R.I.B.A. at 5.45 p.m. on the dates given. Copies of the lectures may be obtained beforehand on application in writing to the Secretary, Architectural Science Board, 66 Portland Place, London, W.1. Application may be made for the whole series or for single lectures.

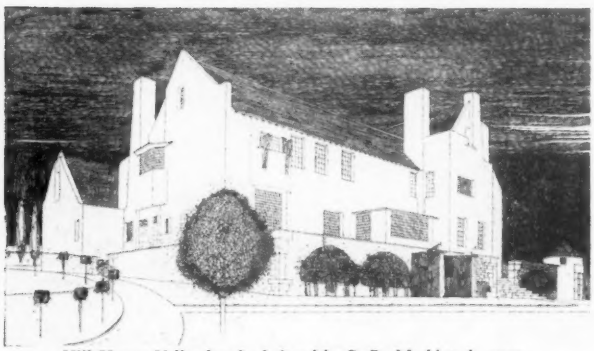
Switzerland

The Exhibition of Swiss Planning and Building at the R.I.B.A. opened after we went to press. This number of the JOURNAL contains, however, a selection of photographs of recent buildings which will give members an idea of the exhibition's remarkable interest. Here is a modern architecture of a general type which we were beginning to approach in 1939. Allowing for climatic, scenic and national differences (as well as for the pure photographic light of Switzerland) the rational shapes, the clean lines, the direct planning are features that might well have characterised our 1939-46 period of architecture, had it existed. Moreover, this is the architecture of a democracy—indeed of a technically educated democracy. It bears no trace of the pomposity and showmanship of the dictatorships nor of the pretentious vulgarity of other manifestations of their outlook. It is architecture well worth our careful study.

The Exhibition remains open at the R.I.B.A. until 26 October (10 a.m. to 6 p.m. week-days). Members would be well advised to make a special point of seeing it. A critical appreciation by Mr. Maxwell Fry [*F.*], will be published in the October JOURNAL.

Lectures on Office Organisation

The second of the informal lectures in this series will take place on Tuesday, 22 October, at 6.30 p.m. The subject will be " Office Finance," and the speakers—two architects and an accountant—will deal with a wide range of problems under this somewhat comprehensive head. The following have agreed to take part in



Hill House, Hellensburgh, designed by C. R. Mackintosh, 1903.
(See pages 489-491)

the talks—Mr. Percy V. Burnett [*F.*], Mr. A. M. Chitty [*F.*], and Mr. Brian Boys (accountant). Mr. E. D. J. Matthews [*A.*] will be in the chair and the talks will be followed by a discussion.

Light refreshments will be available at a small charge from 6 to 6.30 p.m., and it will greatly assist the catering arrangements if members intending to be present would either send a post-card or telephone the Secretary of the Lectures Committee not later than 15 October if they intend to be present.

Later in the session there will be two more informal lectures at which the speakers will be as follows :

Partnership and Profit Sharing : Mr. G. Grenfell Baines [*A.*], Mr. Raglan Squire [*A.*], and Mr. H. V. Lobb [*F.*] (Chairman).

Architects to Public Authorities : Mr. Hubert Bennett [*F.*], Architect to West Riding of Yorks ; Mr. Kenneth Campbell [*A.*], Miners' Welfare Commission ; Mr. D. E. E. Gibson [*F.*], City Architect of Coventry ; Mr. R. H. Matthew [*A.*], (Chairman), Chief Architect, the London County Council.

Reprints of the first lecture in the series—Office Organisation in a Private Practitioner's Office—will be available at the meeting to be held on 22 October, price 6d.

Durham Degree Course in Town Planning

The University of Durham has recently established in its Newcastle Division a Department of Town and Country Planning and has instituted a Degree Course. It is under the direction of Professor J. S. Allen, B.Arch. [*A.*], M.T.P.I. Hitherto the study of town planning has been largely a post-graduate activity of those already qualified in architecture, engineering, surveying or law. The new degree course at Durham is a full five-year course teaching town planning in its widest sense, embracing not only the layout of buildings, roads and services but also the use of land for industry, agriculture, education, recreation, etc., and involving a knowledge of geography, geology and sociology. It is not intended that the planner should usurp the functions of the allied professions but that he should be able to collaborate with the architect, the engineer, the economist and the sociologist. The training, therefore, is being designed as a series of carefully related courses of study on all those aspects of the allied professions which relate to town and country planning.

Students will be prepared for posts in the civil service and local government as well as in private practice ; training for planning work is not to be confined to practice in Great Britain but will include work in the colonies and abroad. The degree course carries exemption from the final examination leading to Associate Membership of the Town Planning Institute.

The first year includes Mathematics, History of Town Planning, Human Geography, Elements of Geology, Elements of Architecture, Design and Construction, Surveying and Cartography. The second year includes History of Landscape Design and Garden Planning, History of Town Planning from 1850 to the present day, Geography of the British Isles, Site and Building Valuation, Outlines of Agriculture, Principles of Architectural Planning.

The third year includes the theory and practice of Planning, Principles of Civic Design, Landscape Design, Public Works Engineering, Central and Local Government Organisation. The fourth year includes the theory and practice of Planning, Outlines of Economic Organisation, Public Works Engineering, Statistics, Sociology, Statutory Planning Law, and Planning Practice. The fifth year includes Professional Practice, Public Utilities, and a written thesis. Throughout the five years of the course all lecture courses are closely related to studio and field work in planning.

The R.I.B.A. Library

The Library is now back in its original quarters but not with its original arrangement. The opportunity has been taken to improve the organisation and arrangement and to make some minor structural alterations ; these include the insertion of an acoustic ceiling to reduce noise to the low level required in a busy library. The architect for the alterations was Mr. G. Grey Wornum [*F.*]. An article in this number (page 496), by Mr. S. Rowland Pierce, R.S. [*F.*], Honorary Secretary of the Library Committee, describes the improvements and discusses the services which the Library can render to members.

B.S.I. Handbook No. 3

We have been admonished by the British Standards Institution for suggesting, in our review of the M.O.W. Exhibition of Standard Products for Housing (July JOURNAL), that a summarising handbook of B.S. products should be prepared for the use of architects, when in fact such a handbook already exists. In acknowledging our error we would like to draw members' attention to this useful book, which was specially published " to serve as a supplement to the Housing Manual . . . (and which is) . . . a summary of the published British Standard Specifications referred to in the Manual." The handbook is in two parts, the original handbook and a supplement which is almost as large as the original. It is entitled " Handbook of British Standards for Building Materials and Components," its short title being " B.S. Handbook No. 3." It is obtainable from the British Standards Institution, 28 Victoria Street, London, S.W.1, price (Handbook No. 3) 12s. 6d. and (Supplement) 7s. 6d., post free.

B.I.N.C. Building Congress 1946

It has been decided to hold a further Congress of the Building Industry at the Central Hall, Westminster, S.W.1, on 19 and 20 November. The purpose of the Congress will be to obtain the views of all concerned as to the ways and means by which the enormous new and reconstructional tasks facing the industry can be most efficiently undertaken. It is estimated from the particulars of the building needs of the country already known and proposed, that an output of between £600 and £700 million per annum, at present values, will be called for over a period of at least 20 years. (In 1938 £255 million was expended on all building.) All who are in any way interested in the task or who feel they can and should contribute in any way to the deliberations are invited to attend. The background subjects of the Congress will be the pertinent and related questions and problems of sustained production and the long-term availability of labour and materials supplies. The Congress will be presided over by Mr. F. W. Purse, M.I.E.E., M.I.Mech.E. The Minister of Works, the Rt. Hon. Mr. George Tomlinson, M.P., has agreed to open the discussion on the morning of the 19th and the Parliamentary Secretary to the Ministry of Works, Mr. Harold Wilson, O.B.E., M.P., will sum up, dealing with the points of principle and proposals made at the Congress. The usual arrangements for supplying lunch on the two days for those attending the Congress will be made. The tickets will be at the usual charge of one guinea, including lunches. Applications for tickets can be made forthwith to the offices of the Building Industries National Council, 11 Weymouth Street, W.1. Particulars of the subjects and programme of the sessions of the Congress will be available shortly.

County Honour for Sir Percy Thomas

Sir Percy Thomas, O.B.E., Hon. LL.D., J.P. (Past President), has been appointed a Deputy-Lieutenant for Glamorgan.

EXHIBITION OF SWISS PLANNING AND BUILDING

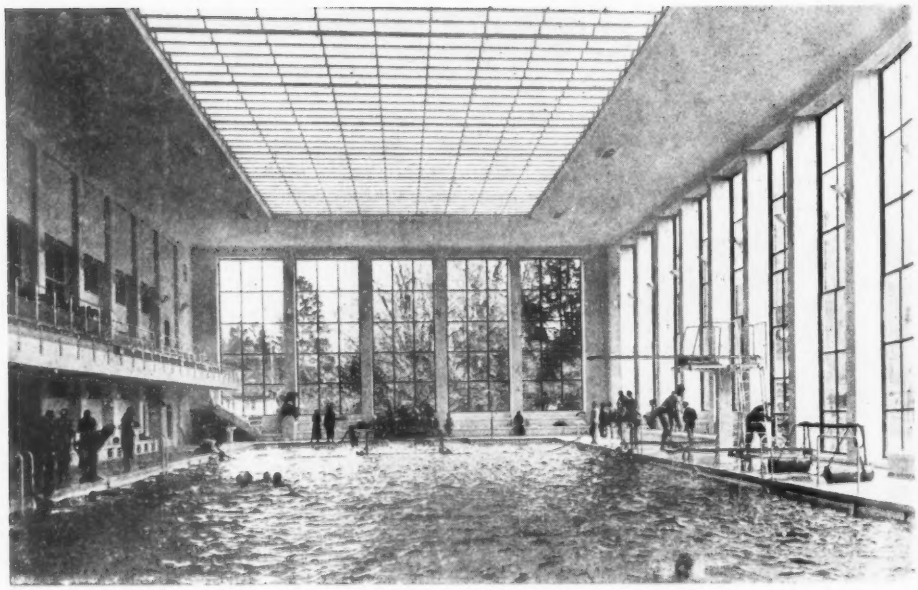
SELECTED PHOTOGRAPHS

At the R.I.B.A., 18 Sept. to 26 Oct.

"Le Bateau Ivre," by H. Baur. Swiss National Exhibition, 1939.

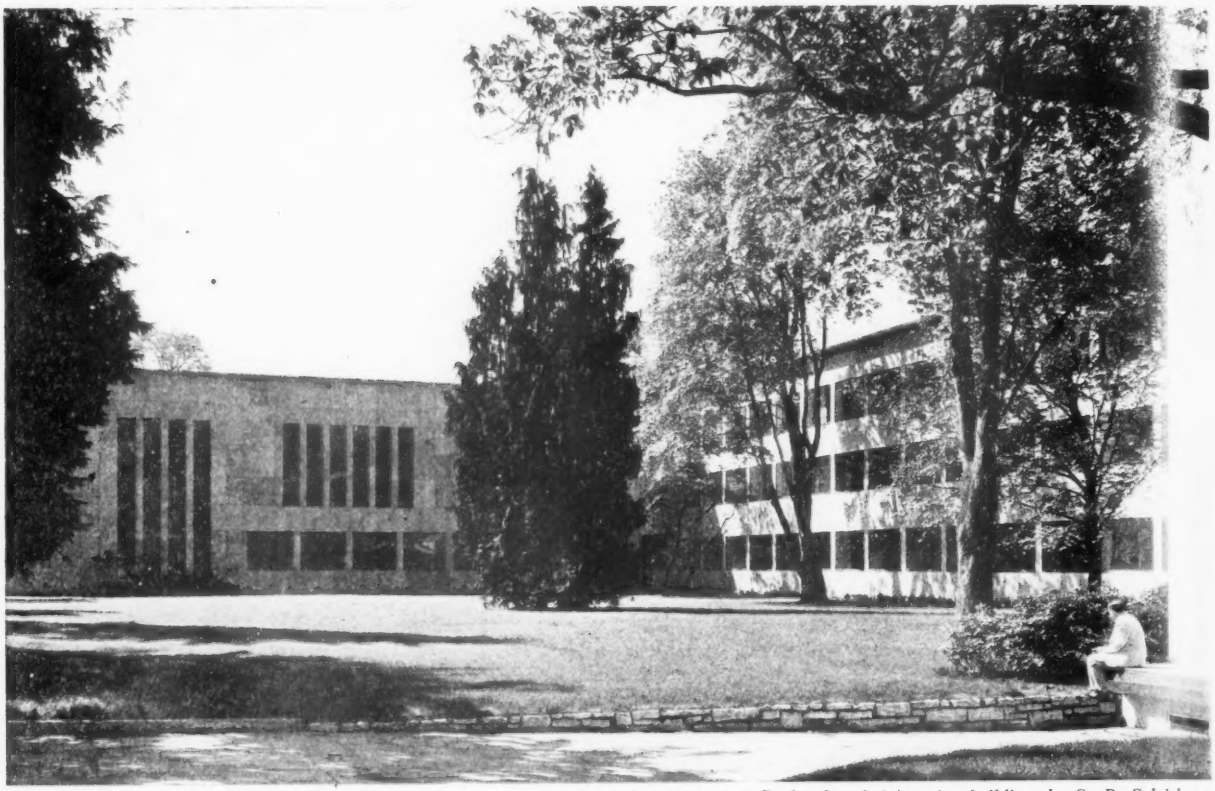
Above: Block of flats in Zurich by William Dunkel. Below: Municipal hospital at Basle (1941-45). Collaborating architects: E. and P. Vischer, H. Baur, Bräuning-Leu-Dürig.

The Corso "Dance" at Zurich, by E. F. Burckhardt.

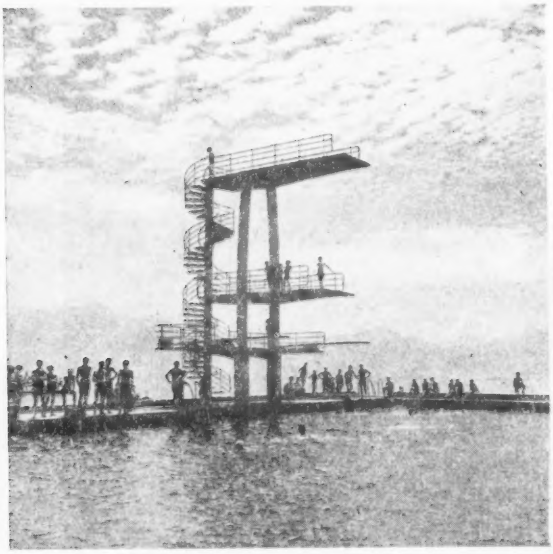


Municipal Baths at Zurich, by the architects' department of Zurich; chief architect, H. Herter.

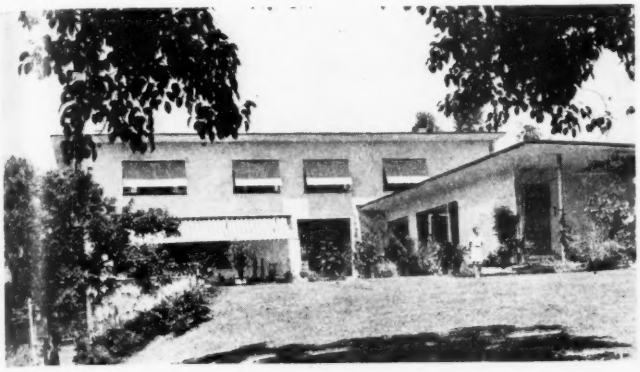
Congress House at Zurich, by M. Haefeli, W. Moser and R. Steiger.



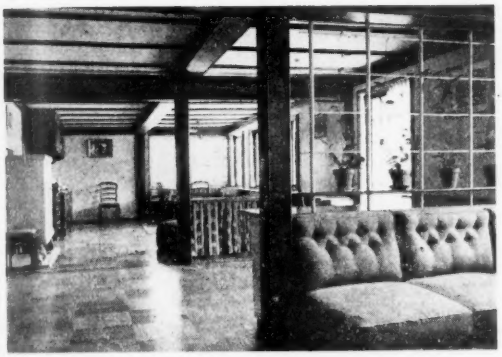
Chemical Factory at Basle, the administration building, by O. R. Salvisberg.



Right: The children's corner of the Lausanne Lido.
Above: The diving stage at the Lido.

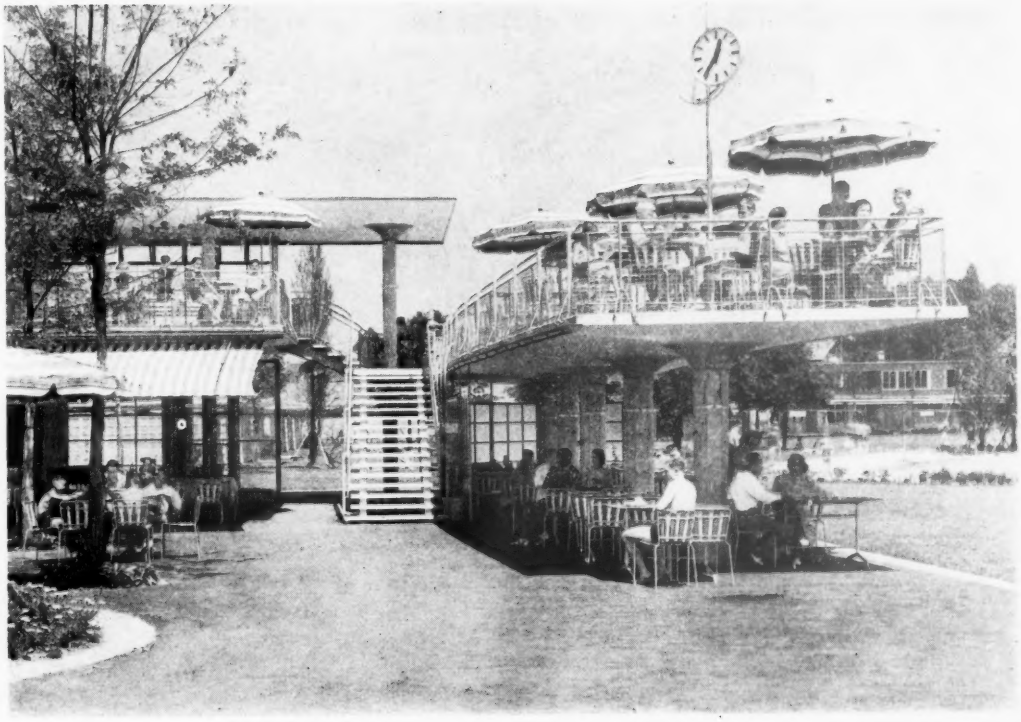


House at Zolliken, Karlenzinger.

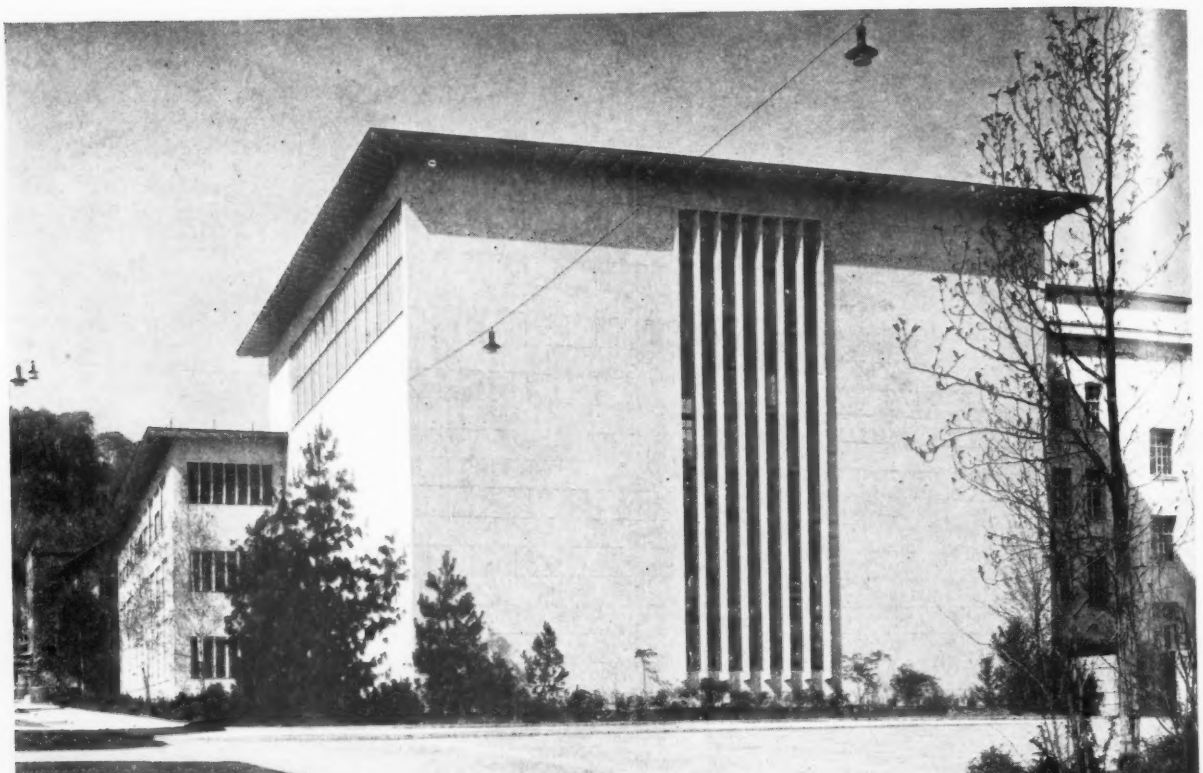


Drawing-room of a house near Zurich, by H. Fischli.

Apartment House at Basle, by O. Senn.



Restaurant of a recreation centre in Zurich, by W. Moser and M. Hafeli.



The Brown-Boveri high tension electrical laboratory at Baden, by R. Rohn.

Congress House at Zurich, garden terrace with restaurant, by M. Haefeli, W. Moser and R. Steiger.

DRAWING FOR REPRODUCTION

ADVICE TO

ARCHITECTURAL DRAUGHTSMEN

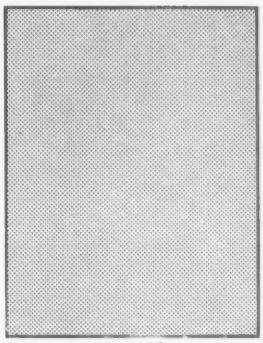


FIG. 1.—*A half-tone screen magnified, showing the arrangement of dots.*

Most draughtsmen to-day sooner or later have to prepare a drawing which is to be reproduced in a printed report, either for a building committee or to explain a town planning or building scheme to the public, or to illustrate a building in a periodical. Examination of many such reports and illustrations shows that few architects or draughtsmen have learnt the comparatively simple principles of drawing for reproduction which make all the difference between good and bad illustrations. What may well have been a brilliant drawing in a large-scale original too often looks insipid when reproduced at report, book or periodical size, or may even be illegible. When this happens it is useless to blame the process engraver (more commonly called the "blockmaker") because he can do no more than his best within the severe limitations of his technique. It is very rare to find a really well-produced illustration in a report or periodical which the draughtsman has not prepared with an eye to its reproduction; when this does happen it is usually a pure fluke. The wise draughtsman, knowing that his drawing may be reproduced, will take care of the many points which this article discusses.

First, it is axiomatic that practically all architects' drawings as normally prepared for office use, reproduce badly. This is particularly so with the working drawing (see Fig. 7). Competition and students' drawings are little if any better, many being fuzzy or even illegible when published in the technical press. Neither the editor nor the blockmaker can do anything about this. While it is not suggested that schools of architecture should teach a different technique from that used for normal architectural drawings, it is suggested that competition entrants might have an eye to the appearance of their design on the printed page, in the event of it being premiated. Further, architects who allow their buildings to be illustrated may at least be made aware of the difficulties of making a readable plan out of their ordinary drawings. The R.I.B.A. JOURNAL has long made a practice of specially preparing drawings for illustration, as have certain other technical journals—but not infrequently time is against making a real job of it. Architects who hand a working drawing plan to an editor a day or two before he goes to press should not expect other than mediocre results on the printed page.

Professional illustrators and advertisement designers may possibly sneer at the few simple rules here set out as being the merest alphabet of a highly technical subject on which volumes have been written. This article can attempt little more than to point out the worst pitfalls in drawing for illustration and to indicate how they can be avoided.

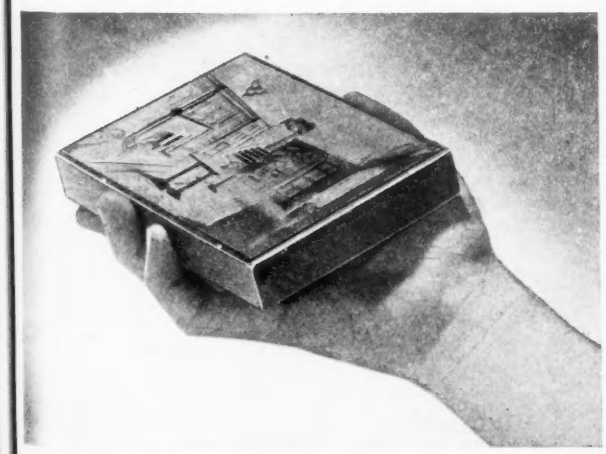


FIG. 2.—*A typical half-tone block. Note that there is a bevelled edge or "beard" through which the copper plate is nailed to the wood backing.*

Methods

Illustrations, either photographs or drawings, are reproduced by photography in a special camera to the size required, the resulting image being then transferred to a copper or zinc plate. The plate is then nailed to a piece of mahogany and the "block" is ready for printing. It sounds simple, but in fact the craft of blockmaking is highly skilled and indeed commands high wages.

There are two principal types of block, namely "half-tone" (commonly called "tone") and "line." The former is used for photographs and wash drawings, the latter for line drawings. There are variants of these such as "deep-etched half-tone" (used for pencil drawings), "duplex half-tone," mechanical tinting and various methods of colour printing, but the architectural draughtsman need not concern himself with these, except with mechanical tinting, which is described below.

Half-tone Process

The photograph or drawing is photographed through a fine screen of square mesh which breaks up the pattern into minute dots (see Fig. 1). Screens are of several meshes, the mesh selected being determined by the quality or smoothness of the paper. The R.I.B.A. JOURNAL uses a "120-line screen," that is to say there are 120 lines to the inch each way. Newspapers use 55, 65 or 85 screens. With a very high quality art paper 150 or 175 screens may be used. Naturally the finer the screen the better is the quality of reproduction. When the plate is in the acid bath, the dots of the higher lights are eaten away by the acid more than those of the darker tones.

Fig. 2 shows a typical tone block. Note that it has a "beard" or edge, $\frac{1}{8}$ in. wide all round through which the copper plate is nailed to the wooden backing. This must be allowed for when type abuts against the block. It can be cut off on one or two edges, but not on more than two, or else the copper will lift off the wooden backing in machine printing.

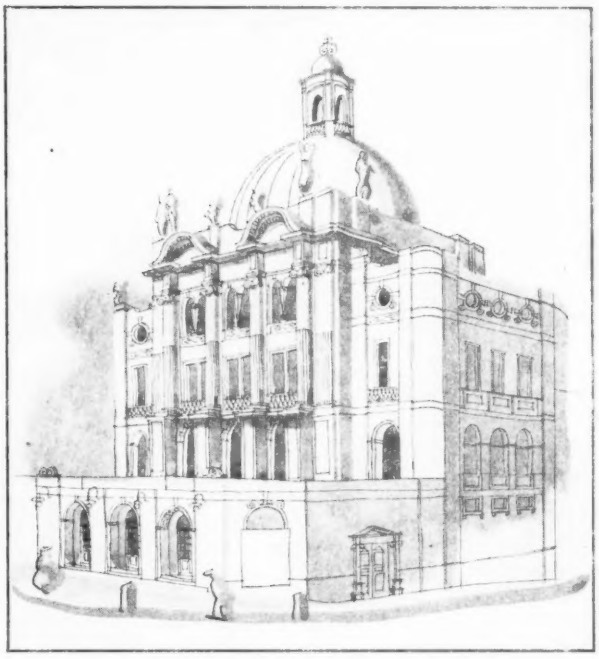


FIG. 3.—*An ink line and wash drawing reproduced in half-tone. Note that the process gives the background, white in the original, a faint tone. The border or "rule" was put on by the blockmaker.*

Blockmakers can put a variety of rules or borders round tone blocks as shown in Figs. 1 and 3. They can also retouch photographs within certain limits. For instance, unwanted buildings on the skyline can be painted out. In a photograph reproduced in the R.I.B.A. JOURNAL some years ago, scaffold poles in front of a building were painted out (to the surprise of the architect) and two interiors of the R.I.B.A. building, reproduced in the Centenary JOURNAL had missing carpets put in by air brush. But there are definite limitations to retouching and if it is not very skilfully done it shows on the block and the reader feels he has been somehow cheated by a "faked" photograph. One should always consult the blockmaker about any retouching work.

Photographs for blockmaking should be printed black, not sepia, and have a glossy finish. "Arty" photographs of soft tones usually reproduce badly, at least not so well as a hard "contrasty" print. If photographs of a building are required for reproduction, the photographer should be told when prints for this are ordered.

It is undesirable to try making a new block from a half-tone illustration, i.e. one that is already cut up into dots by a screen. Making a new block from such an illustration results in the phenomenon of "double screening" which is almost certain to be fuzzy in printing. However, with a very fine screened illustration on art paper as the original it can be done, using a coarser screen on a coarser paper with considerable reduction for the reproduction, but the result is never so satisfactory as with an original photograph.

Wash drawings, i.e. perspectives or rendered plans, can only be reproduced in half-tone. When such a drawing is to be specially made for reproduction in black and white, nothing is gained by using colour washes, though if they are used, modern panchromatic photography faithfully reproduces the tone values including the effect of washes containing sediment. For pure half-tone reproduction work it is desirable to use monochrome washes, such as watered indian ink and, of course, the drawing can include black indian ink lines. (See Fig. 3). A drawing which is predominantly of ink lines with one or two washes represents a border-line case and better results may be obtained by using the line process and mechanical tints (see below).

The effect of reduction in size from the original to the illustration, though a far more important matter in line work, should be considered in half-tone work, particularly in the reproduction of large perspectives or other wash drawings. Small scale details which may be quite obvious in large originals tend to disappear when, for instance, a drawing 30 in. wide is reproduced 6 in. wide. Therefore the draughtsman should keep his effects fairly broad and his contrasts of tone reasonably sharp. Like the sepia photograph the subtly-toned perspective does not reproduce well. There are pitfalls here in the coloured perspective. For instance, a dark toned red brick building may stand out very distinctly against a brown background *of the same tone value*, when seen in the original, but the camera, which reproduces tone values only, may cause the two to blend in a half-tone reproduction. Subtly-toned coloured paintings, such as those of Turner and Whistler, commonly lose so much of their effect in black and white half-tone as to be virtually unreproducible except in full colour printing.

The Line Process

As its name implies, this process reproduces in lines and not in dots. Therefore the original should consist of black and white lines and areas. The blacks are solid black and therefore more brilliant than the darkest half-tone effect. At the same time the black areas should not be too large or they may smudge in machine printing because the printer's ink on them may not have time to dry before the machine deposits the next sheet on top.

In the blockmaking the body of the plate (of zinc) is etched away, leaving the lines standing as ridges. (See Fig. 4). The metal is nailed to the wooden backing through the lower parts of the metal so that, unlike the tone block, there is no beard round the sides; this allows type to be set close up to a line block.

Because line block reproduction is almost invariably used for plans, it is this method with which the architectural draughtsman will be most concerned. The first point to realise is that when a drawing is reduced in size, *everything on it*—lines, lettering and white spaces—is reduced proportionately. If a drawing is reduced to one-tenth of its original width, a line which is (say) 1/32 in. thick will be reduced to approximately 1/320 in. This becomes so delicate in the block that it will appear but faintly and may even break away under the pressure of the printing machine. The spaces between the lines are also reduced, so that fine hatching or other close lines (such as the 2 in. cavity in

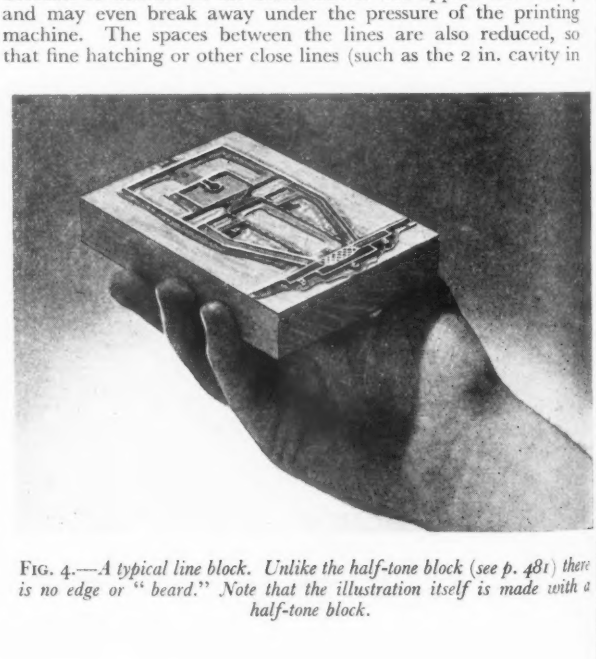
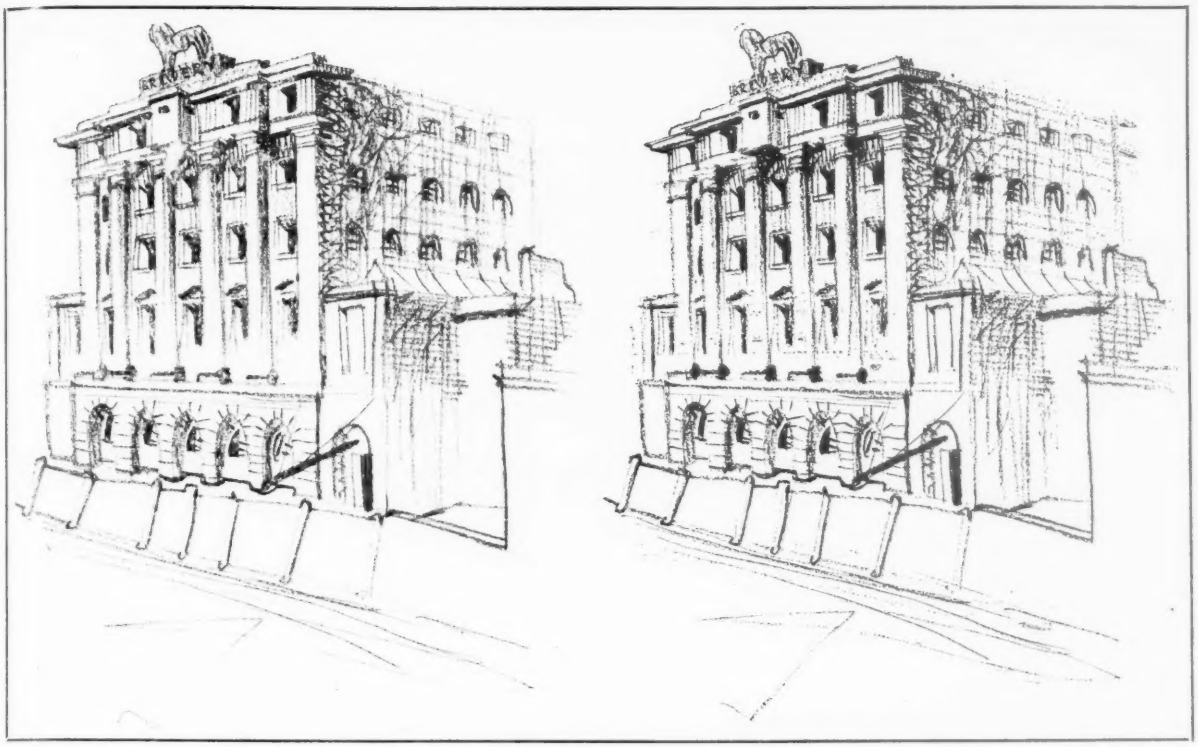


FIG. 4.—*A typical line block. Unlike the half-tone block (see p. 481) there is no edge or "beard." Note that the illustration itself is made with a half-tone block.*



FIGS. 5 *and* 6.—*Reproduction of a pencil drawing by ordinary line process (right) and by deep etching (left). Note how the deep etching brings out the quality of the pencil line. This is very noticeable in the right-hand top corner and in the lines at the bottom. The drawing is reduced to about one-quarter the width of the original. The border or "rule" round the two reproductions was put in by the printer.*

11 in. walls at $\frac{1}{8}$ in. scale) become so close together that the spaces fill with ink and print as irregular solids. Therefore make all hatching sharp and avoid putting lines too close together.

A third reason is that the fine and closely-spaced lettering used on working drawings, which may be perfectly legible on the original, tends to become a mere haze on reduction. This is not entirely because of reduction in line thickness and spaces. A lettered word has to be not only visible but also legible. There is a minimum size which the human eye can conveniently read. Printers know this and the smallest type they commonly use is "6-point." HERE IS A SAMPLE OF 6 POINT.

If your lettering is to be legible without the use of a magnifying glass in a drawing which is to be reduced to one quarter of its original width, the lettering on the original must be four times the height of 6 point— AS LARGE AS THIS.

Spacing of lettering is also important. Some types of lettering favoured by draughtsmen and which are used to get words into small spaces (i.e., small rooms on plans) reproduce badly merely because they are too closely spaced and the eye cannot easily separate the letters.

Drawing for Line Reproduction

The following is a good procedure to follow in preparing a drawing, say of a plan, for reproduction :—

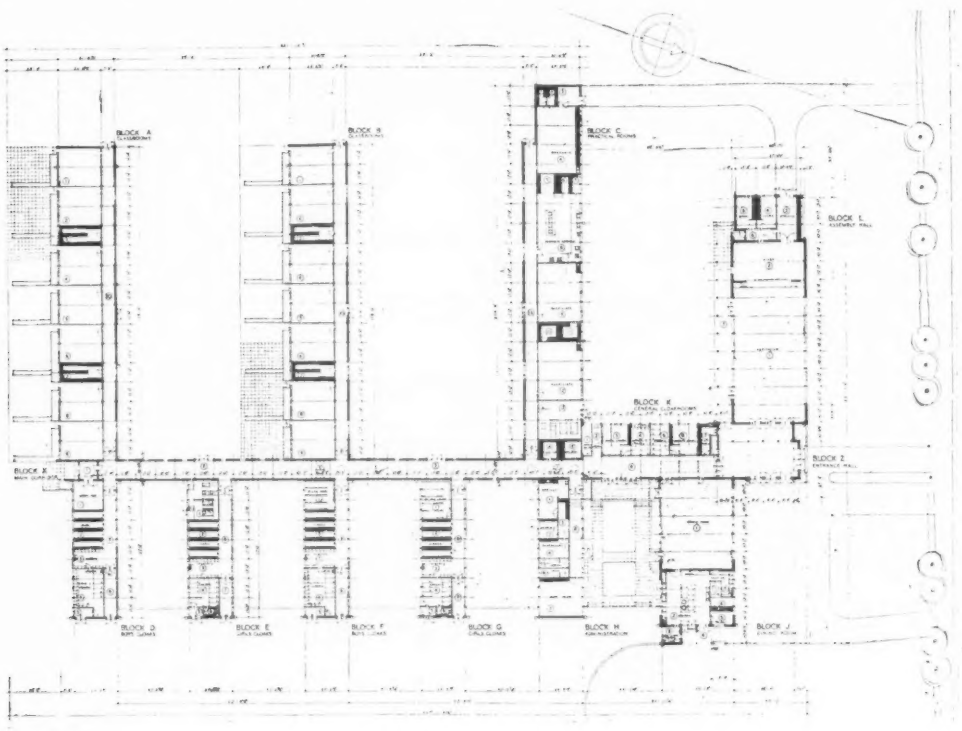
1. Sketch out roughly the plan to the size at which it will be reproduced. The maximum width of type area on a foolscap report is about 7 in., on the R.I.B.A. JOURNAL it is $7\frac{1}{4}$ in. and only a few journals or reports have a greater width. (A double folding page may be used in a report or book but is too costly for most periodical work.) This sketch will show you roughly what your drawing will look like eventually. If your drawing is to fill a whole page, for example as a page of details, do not forget the height of the type area (9 in. in the R.I.B.A. JOURNAL) ; in such a case make your sketch to the dimensions of the type area and fit your drawing into it. That is to say, the drawing should be *in the proportion of* 9 in. high to $7\frac{1}{4}$ in. wide. Allow space for a caption in type if one is required. Small drawings (*e.g.* key plans) should preferably be sketched to fit column widths, though this is not essential.

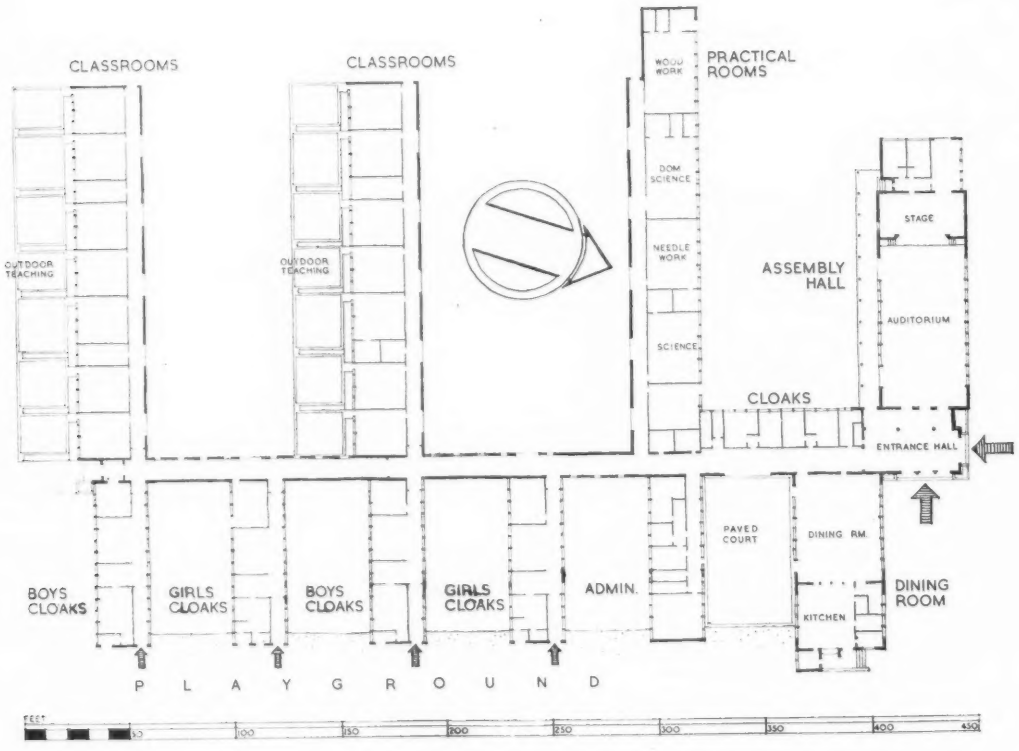
To find out the reduced dimensions of your illustration, draw a diagonal pencil line across it ; measure from the margin to the diagonal line the dimension already known (*e.g.* 7 in. for page width). The measurement at right angles on the other side of the diagonal will give you the other dimension. (See Fig. 13). The same process can be used with photographs, either by drawing the diagonal line across the back or across a piece of tracing paper over the face.

2. Cover the original plan with a sheet of white tracing paper and draw on it *in ink* the plan for reproduction. While it is feasible to re-draw a plan to the exact size required, this is much more laborious than working with a tracing of the original and letting the blockmaker effect the reduction in size. Also, reduction improves the quality of the drawing ; for instance, reduced lettering always looks better than lettering drawn small, say to about 6-point size.

Full black indian ink should be used, because a crisp, sharp-edged line is required. Pencil is much less suitable for line reproduction ; if it is used, the pencil should be a 2B or 3B constantly re-sharpened. Pencil drawings of slight quality can

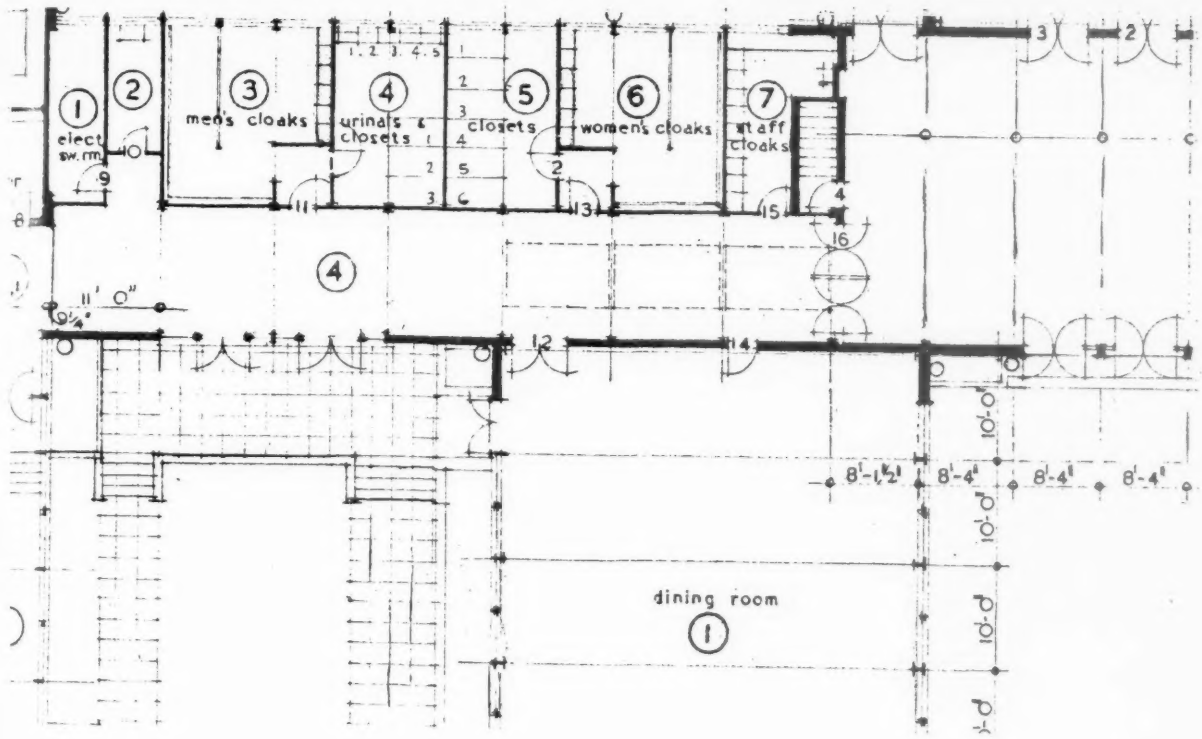
(Continued on p. 486)





On this page (top), FIG. 7.—*The working drawing plan of a school reproduced from the original print. Below* FIG. 8.—*A drawing from the print reproduced above specially made for illustration.*

On the opposite page (top), FIG. 9.—*A full-size reproduction of a portion of the working drawing. Below,* FIG. 10.—*A full-size reproduction of the same portion of the specially-made drawing.*


1
elect sw. rm.
2
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men's cloaks
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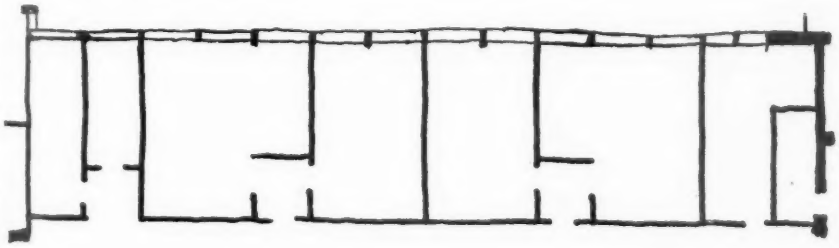

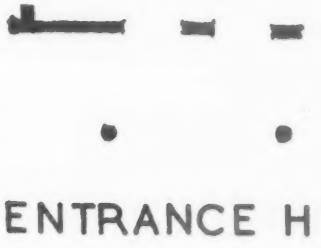
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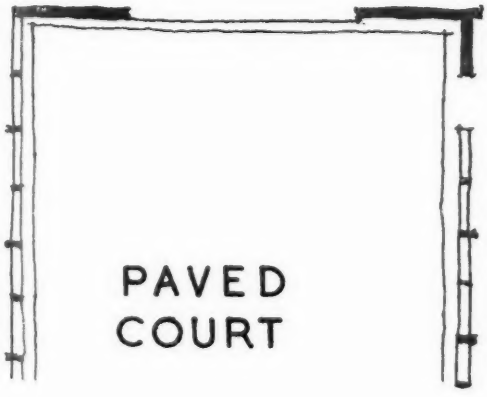
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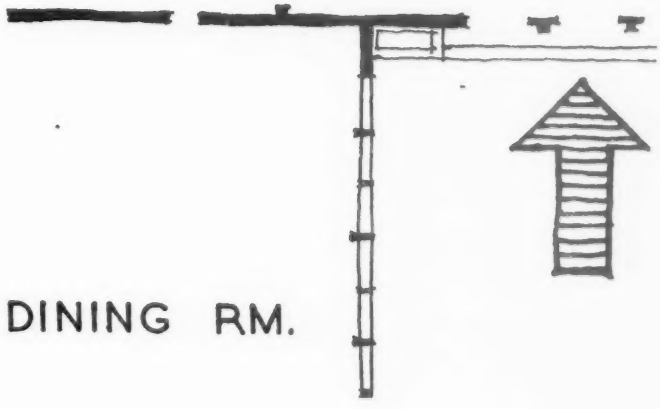

DINING RM.

FIGS. 11 *and* 12.—*The value of good firm lines and black areas in drawing for line reproduction. The liveliness given by the blacks is far more noticeable in the reproductions than in the originals. The drawings are reduced to half the width of the originals.*

be reproduced by deep-etching—a variant of ordinary line block-making—though the really fuzzy pencil sketch—drawn with the lead nearly flat on the paper—may require half-tone reproduction. Fine line ink sketches or perspectives may also require deep-etching to obtain the fullest effect. (Figs. 5 and 6). Deep etching is, however, from two to three times as expensive as the ordinary line process.

3. Omit as much detail as possible or indicate it broadly. The plan has to be read easily and too much detail makes it confusing. Door swings, plinth lines and similar items which customarily appear on a line plan (i.e., a working drawing) can usually be left out.

4. Draw in the lines. A thick ruling pen should be used, but much of the work can well be done freehand with a broad-nibbed pen, specially if the drawing is to be much reduced. Freehand is not only much quicker than ruling, but gives a nervous quality to the lines, the reduction concealing the fact that it is freehand.

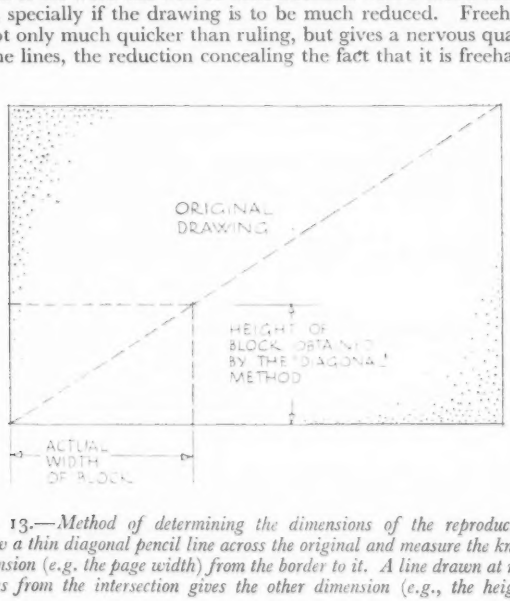


FIG. 13.—*Method of determining the dimensions of the reproduction. Draw a thin diagonal pencil line across the original and measure the known dimension (e.g. the page width) from the border to it. A line drawn at right angles from the intersection gives the other dimension (e.g., the height).*

Ruling is liable to look dead but may well be used in combination with freehand for such things as window lines on plans.

5. Consider the complete scheme of lettering. Most reproduced drawings are over-lettered. For a technical article, of which the readers will be architects, there is no need to letter bathrooms and W.C.'s as such, because all architects can recognise them in a plan from the fittings. There is often no need to letter " Main Entrance " because a fat arrow will indicate it more easily. Many words can be abbreviated. Every architect knows what " L.R.," and " K " mean on a house plan. If, however, the plan is for a report to be read by laymen, it is as well to go to the other extreme and label everything, including " main entrance," " cooker," " forecourt " and even " W.C."

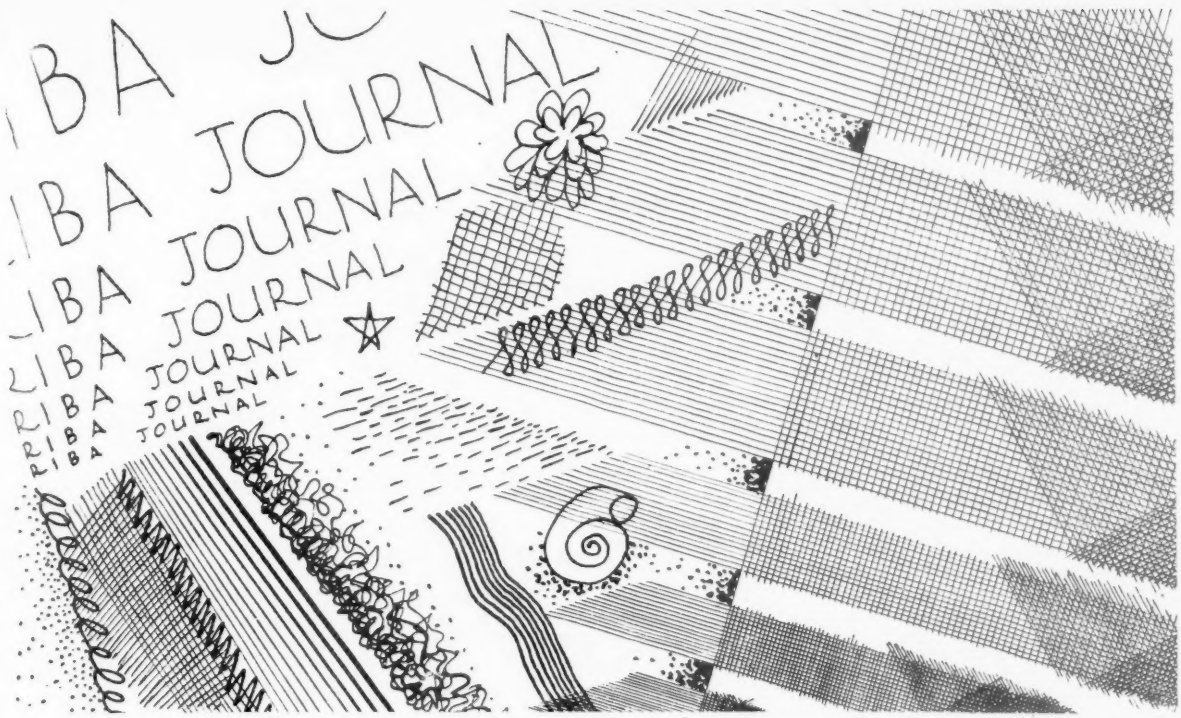
Key lettering, numbering or hatching, with a marginal key is apt to be wearisome to read and should generally be avoided. It may, however, be necessary on complicated plans or where the reduction is so great that there will not be room for legible wording in the room spaces. Keep the items on the key as few as possible.

It is not necessary to put the key on the actual drawing (unless it is of hatching) because it can be set in type by the printer; space must be allowed for this on the page. Nor is it necessary to letter in the main title and architect's name; type always looks better than lettering in main headings unless the latter is really well drawn by a skilled draughtsman; it is also much quicker.

6. Consider the styles, sizes and pattern of lettering. Uno stencil is almost always satisfactory, though many draughtsmen may prefer their own styles. But legibility is all important. Fancy lettering rarely looks well, at any rate on a plan. The printer can inset type in a block but this is expensive and has to be very well done if it is to look other than messy.

Size of lettering should be carefully balanced with the general scale of the drawing when reproduced; if too large the effect is clumsy; if too small the lettering is illegible. Two or more sizes or styles of lettering may well be used, one for the main rooms and one for less important items, provided the two styles harmonise. (See Fig. 8.)

Study the *pattern* of the lettering, as indeed of the whole drawing. A plan some 7 in. wide is very different from a drawing 2 or 3 feet wide in that the eye can take in the whole of the former at a glance. A nicely balanced pattern of plan lines and lettering should be aimed at. The North point (which



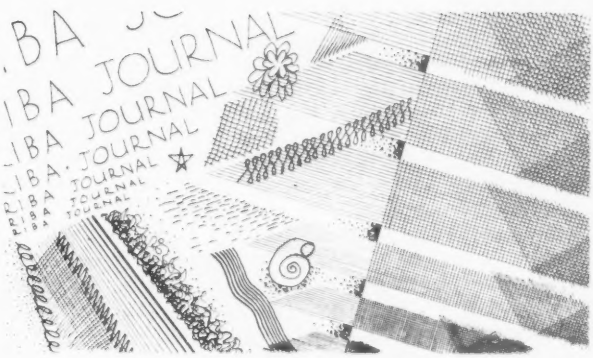
should almost never be omitted) or a scale can be used to fill an aching void. When working on a very large tracing it is sometimes difficult to see the overall effect. Either stand the drawing against the wall and look at it from a distance or use a diminishing glass.

Dimensions can be indicated either by a scale, which is rather a nuisance to the reader, or by a few of the more important dimensions arrowed, or by lettering such as " 17 by 9 " (do not bother with the odd inches) or by room areas such as " 450 sq. ft." (you may even omit the " sq. ft."). But some indication of size should always be included.

7. There is no need to rub out mistakes ; paint them out with Chinese white or preferably " Process white " ; alternatively neatly paste over them paper which is the same colour and texture as the background.

8. Do not fold or crease the tracing and keep it reasonably clean. If the paper gets torn it can be repaired by pasting over a strip of the same paper. An ink border is not necessary ; draw in soft pencil the limits of the block round the drawing in a simple shape, such as a rectangle, and mark them " edge." This will also help you to determine the exact dimensions of the illustration. The blockmaker can also omit from a line block certain items—within reason—that you do not wish to appear. Draw a very soft pencil ring round such items and mark " omit." Further, the printer can cut out small isolated items, such as an unwanted piece of lettering, from the finished line block.

The above points are illustrated in Figs. 7, 8, 9 and 10. Fig. 7 is a typical working drawing reproduced " cold " ; it is practically illegible. Fig. 8 is a specially made tracing of it which was used in the July 1946 JOURNAL. Fig. 9 is a full-size portion of the working drawing (size 39 in. by 27 in.) from which the tracing was made and Fig. 10 is the same portion of the plan as traced, also full size. The tracing is not a perfect example but it was prepared rather hurriedly on the lines described above. Note that it is almost entirely freehand.



FIGS. 14, 15, 16.—*The top drawing is reproduced at original size, the lower ones half and a quarter width respectively from the same drawing. Study the effects of reduction on the small lettering, on the thicknesses of lines, and on the hatching.*

Figs. 14, 15 and 16 illustrate the effect of reduction in line drawing, lettering and hatching. Fig. 14 is reproduced at original size ; Fig. 15 is half (linear) reduction and Fig. 16, one quarter (linear) reduction from the original.

Smudging ink lines with the thumb is a method of expression sometimes used by black and white draughtsmen. It should not be used in line drawings for reproduction, because the edges of the smudging tend to become woolly in a line block.

Use of Prints

Ordinary black line photo-prints do not reproduce so well as do ink drawings. Photo printing is often uneven, leaving gaps in the lines (see Fig. 7). Where, however, a print is used for reproduction it is desirable to go carefully over thin or broken lines either with ink or a well-sharpened 2B pencil. A print of a working drawing may be turned into a drawing for reproduction by whitening out unwanted lines (such as dimensions, drains, etc.), blacking in the walls with indian ink and thickening lines generally ; lettering may be drawn on a separate sheet of paper, cut out and stuck on. This method of using photo prints is something of a trick used by editors in a hurry (they often are !) but it is never so satisfactory as using an original ink drawing or tracing.

Hatching, Stippling and Mechanical Tints

If a line drawing is to incorporate a tone, this can be done either by hatching, shading or stippling or by getting the blockmaker to put in a mechanical tint. If the former is used, it is important to observe the requisite thickness of lines and of spaces between them, according to the extent of reduction.

An ink drawing, such as a sketch (see Figs. 11 and 12), gains in " body " on the page if it has some proportion of solid black in it. The draughtsman's eye is the best guide to this ; but such black areas should not be too large or they may smear in printing. Also, with comparatively thin paper, such as is generally in use under the present paper restrictions, large black areas are liable to show on the back face of the sheet of paper—a defect known as " grinning through." This can occasionally be noticed in most journals at the present time, including the R.I.B.A. JOURNAL.

But if you want a light tone on an otherwise black and white ink drawing, think twice before using a wash. If you do so, it can only be reproduced by : (*a*) the half-tone process, which will diminish the contrasts of the blacks and whites ; (*b*) a combined line and tone block, which is expensive ; (*c*) using a mechanical tint. The last is generally to be preferred to the other two processes.

The mechanical tint is a method of putting tones on line drawings with which the draughtsman should be conversant. (See Fig. 17). The process is roughly as follows : The blockmaker provides a card of mechanical tints, i.e., combinations of various lines and dots giving different degrees of blackness. From this card the draughtsman selects one or more tints for his purpose and indicates in soft blue pencil the areas on his ink drawings which he wants covered with them. The rest is in the hands of the blockmaker who applies the tints to the block as directed, when it is being made. Thus an effect of line and tone is obtained in only one printing. Tinted areas can be bounded by ink lines or not as desired, though in the latter case the draughtsman must indicate the actual area to be tinted in soft blue pencil. Blue should be used because it does not reproduce in photography for line block-making.

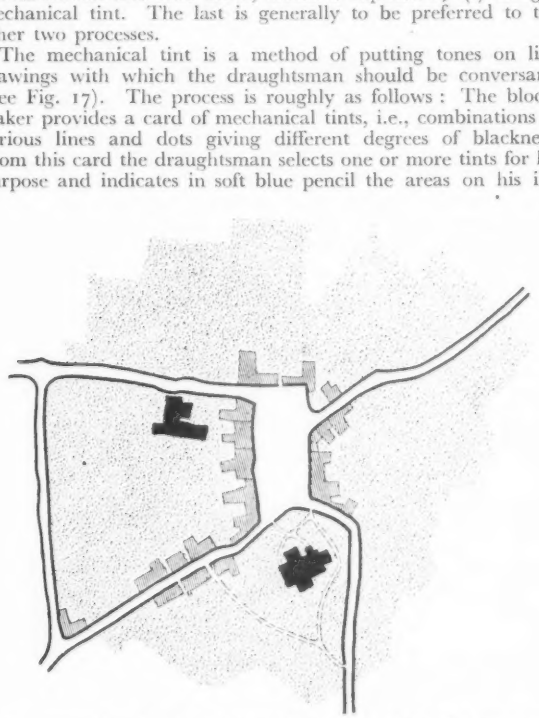


FIG. 17.—*Use of mechanical tints. The pattern of the stipple and the hatching on the buildings were selected from a " tint card " by the draughtsman and applied to the block by the blockmaker.*

Colour Printing

Most town planning reports published to-day include examples of colour printing. A few are good ; the majority are mediocre ; some are just bad. It is very clear that in most cases the town planner has prepared his coloured drawing before consulting the blockmaker. Possibly his drawing has been prepared for a committee ; it is subsequently handed to a blockmaker who can then do no more than make the best of a bad job. The draughtsman who is not experienced in the highly technical craft of drawing for colour printing should invariably consult the blockmaker before he starts his finished drawing. Do not be put off by the printer, if the blocks are being ordered through him ; demand to see the blockmaker himself. A drawing which is prepared for colour printing to a reduced size need not look clumsy when seen at full size.

Colour illustration can be :—

(1) Pure colour without lines.

(2) A combination of line (a line block) with one or more colours (colour blocks).

(3) A combination of line and mechanical tint (line block) and colours (colour block).

Few architectural draughtsmen will be concerned with pure colour printing. It is used for reproducing oil or watercolour paintings and some posters are printed in pure colour. Theoretically three printings with one block for each of the three primary colours will produce any desired shades, but this does not always give exact colour matching ; nevertheless the draughtsman can usually use what colours he wishes on his original. The drawing is then photographed through colour filters which sort out the primary colours which are then transferred to three blocks. The pages have then to go through the printing machine three times. Four colour printing gives better results and even seven colour printing is used in " fine art " reproduction of, for instance, oil paintings or watercolours.

Mechanical tints combined with colour blocks can be used to increase the number of tones. A black mechanical tint over a colour darkens it according to the density of the tone. A coloured mechanical tint lightens a tone by introducing minute white spaces into it. But this is highly specialised work involving much personal study and experiment.

Conclusion

If this article shows that there is rather more in drawing for reproduction than most architectural draughtsmen think, it will have served its purpose. At best it may lead the enquiring mind into a realm of draughtsmanship which is of unfailing interest and fascination. There is abundant scope for improvement in the vast number of illustrated reports turned out in these days of building and town planning committees. These reports form one of the most important means whereby the general public is being led to a comprehension of all that architecture means ; their illustrations should and can be comprehensible, readable and attractive.

Those who wish to make a further study of this subject are recommended to purchase *Line Drawing for Reproduction*, by Ashley Havinden ; The Studio Publications, 10s. 6d. Though written for illustrators and not for architects this book contains much useful guidance on line drawing and the methods of reproducing it. There are many other books on the subject but this one will serve for the beginner.

Article by ERIC L. BIRD [*A.*].
Drawings by JOHN PINCKHEARD [*A.*].

THE HOUSE OF CHARLES RENNIE MACKINTOSH

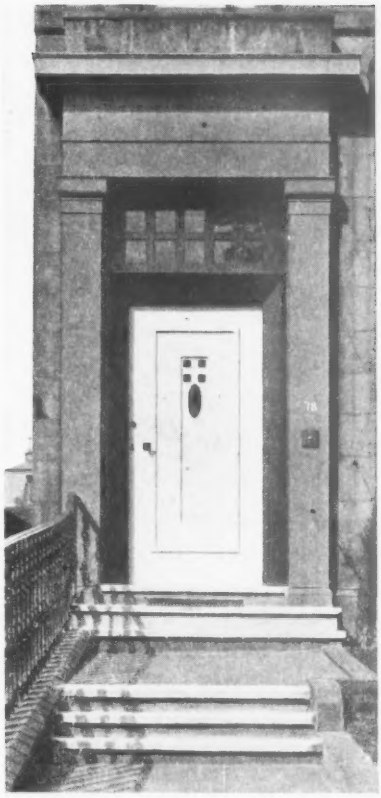
THOMAS HOWARTH [*A.*]

On 15 November, 1945, Glasgow University bought No. 78, Southpark Avenue, Hillhead, a terrace house formerly the home of the late Charles Rennie Mackintosh and his wife Margaret Macdonald.

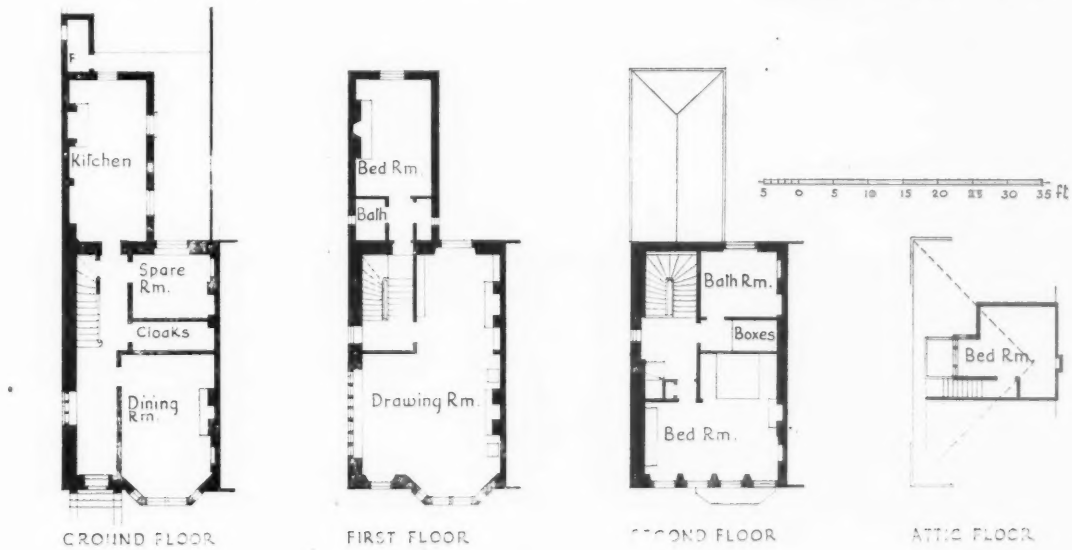
Mackintosh is best known to the architectural profession by his design for the Glasgow School of Art and for his extraordinary furniture and decorative schemes which at the turn of the century aroused bitter controversy in Britain and great enthusiasm in the art circles of Central Europe.

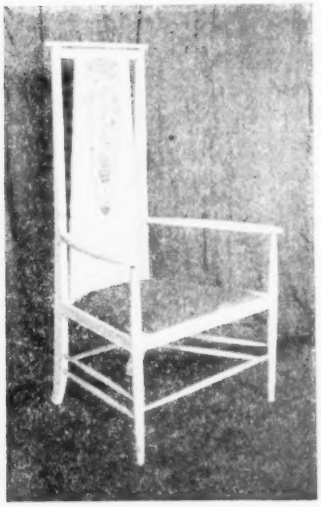
His work is notable for its originality and lack of traditional bias. His few buildings reveal the same care and attention to detail, the same acknowledgment of the inherent beauty of simple materials that characterised his decorative work and, although on occasion he was guilty of over-elaboration and not all his designs can be considered practical, he was undoubtedly a creative artist of the highest order.

Unfortunately little, if any, attempt has been made to preserve his work and during recent years; many of his best decorative schemes have been destroyed and many of his drawings lost. The acquisition of No. 78, Southpark Avenue, therefore, is an event of some importance and although the house is not intended to be a museum—it is now occupied by a senior, member of the University staff—the preservation of some of his interior work is assured. The house was occupied until recently by the late William Davidson, one of Mackintosh's first patrons and his lifelong friend and the Davidson family has generously given a fine collection of the architect's furniture—probably the most representative single collection in existence—to the University in memory of their father. No accommodation is available at the moment for a permanent exhibition of Mackintosh's work but it is hoped that future extensions to the University buildings will make good this deficiency. The Davidson bequest will, of course, form a valuable nucleus to such an exhibition and it is anticipated that a comprehensive collection of the architect's drawings and paintings, together with a number of Continental magazines, will soon be acquired for the University Art Collection. From the cultural standpoint this arrangement will be admirable and when the collection is available to the public it is hoped that the architectural profession will show sufficient interest in the project to assure the University that it has been justified in safeguarding the work of one of the most notable figures in modern architectural history.

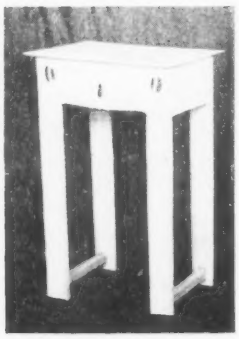


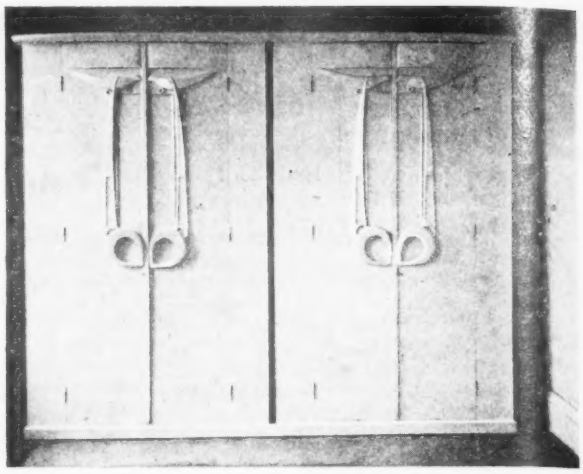
No. 78 Southpark Avenue, Glasgow, redesigned by Mackintosh in 1906. The form of the house was little altered, the principal change being the combining of two rooms to form the drawing room and the insertion of the large window. Above the front door, below the plans.



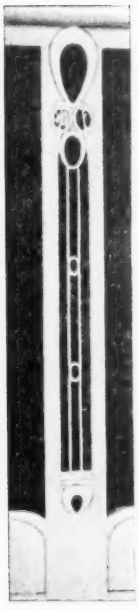


White enamelled bedroom chair and unbleached linen. The back consists of tightly stretched linen, with a stencilled floral pattern in green and mauve

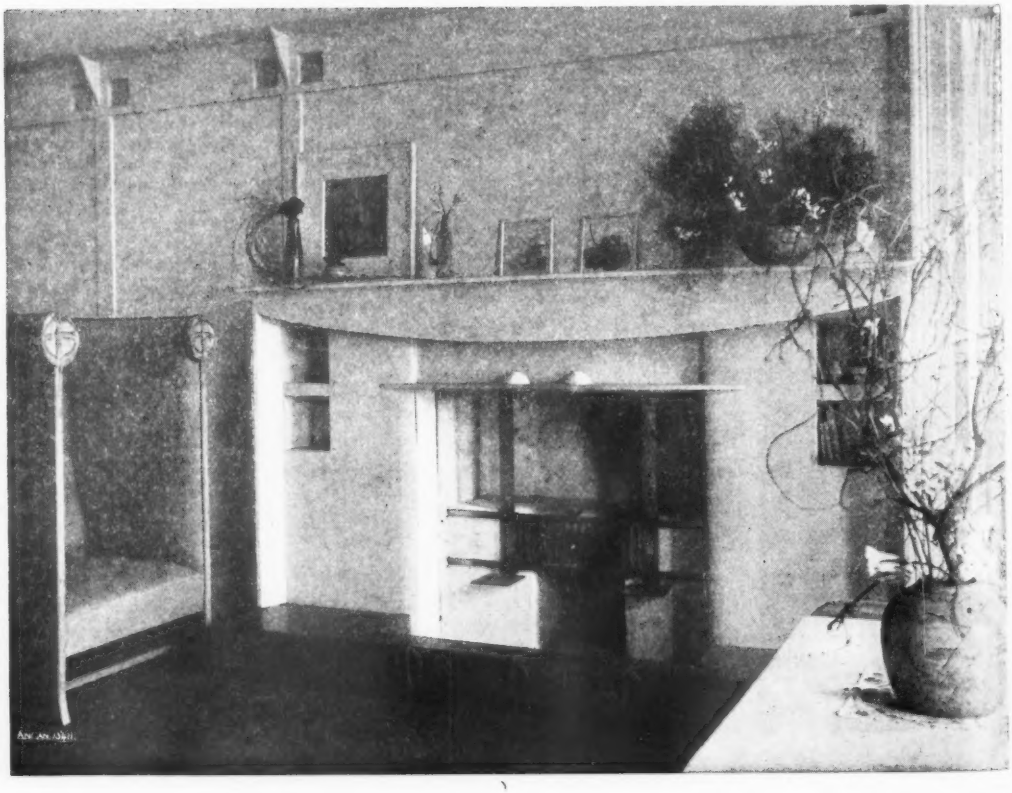




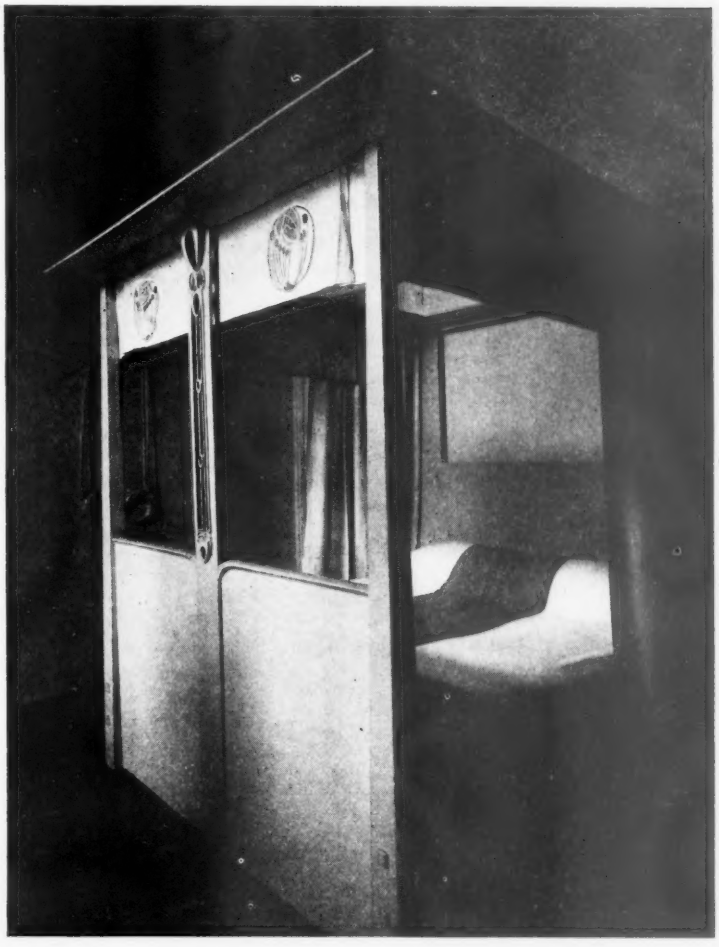
Above: White enamelled twin wardrobes with high relief decoration, in the principal bedroom. Left: a bedside table with leaf-shaped motives of rose-coloured enamel. Below: the lounge fireplace as originally designed. The mantelpiece is of white enamelled wood and the grate of polished steel. The fender is of lead with three circular motives in green opaque glass. The grate has been removed and the fireplace remodelled in recent years. The box chair is of dark oak and unbleached linen upholstery

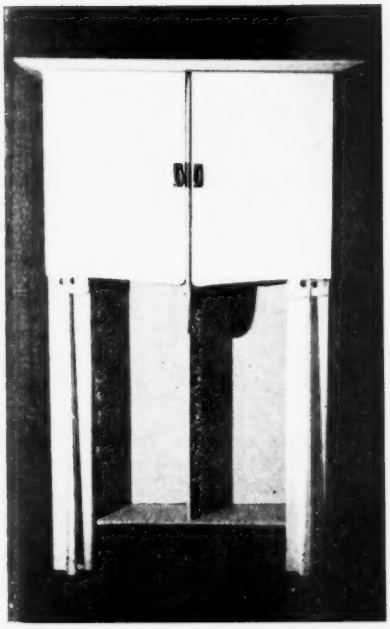


Centre post of the bed on the opposite page

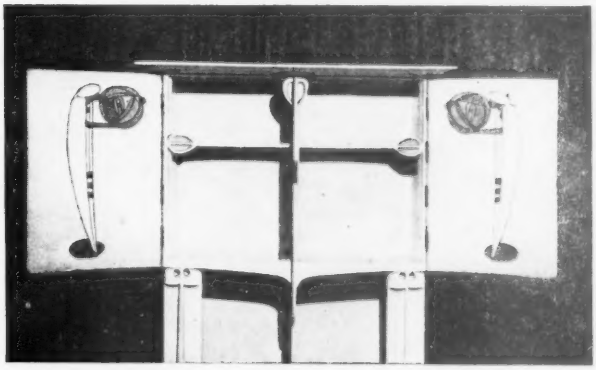


Above : White enamelled chair upholstered in unbleached linen. The upper part of the back is carved from the solid and the lower motive is stencilled in green and mauve





Above : A four-poster bed with an open canopy and embroidered silk hangings; the carved centre post is decorated with small pieces of stained glass. Below and to the left: one of a pair of white enamelled cabinets. The conventionalised figures are of white, blue and rose-coloured glass which is inlaid flush with the silver painted inner surface of the doors



THE DAYLIGHTING OF CLASSROOMS UNDER THE NEW REGULATIONS*

W. A. Allen, B.Arch. [*A.*] and J. B. Bickerdike [*A.*]

Daylight Standards for Classrooms

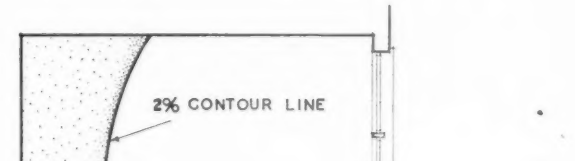
In the Regulations prescribing standards for school premises under the Education Act of 1944 (1) the following clause occurs :

> "At each desk or place of work in every teaching room in every school or department the Daylight Factor shall not be less than 2 per cent."†

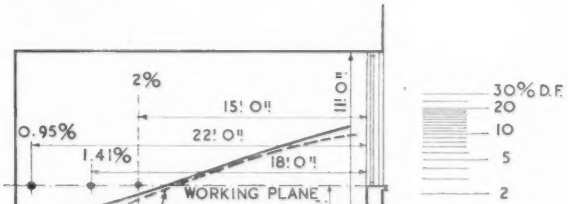
This value is below the level (5 per cent.) which was recommended by the Post-war Study Committee on the Lighting of Buildings. The reduction was not due to any lack of sympathy with the higher objective on the part of the authorities, but rather to the practical difficulties of applying the higher standard to buildings old and new. In order to make this clear the Ministry has included a note in the Memorandum accompanying the Regulations recommending the higher value wherever possible and referring to the draft B.S. Code of Practice for further guidance. The note occurs on page 14 and runs as follows :—

> "The 2 per cent. Daylight Factor prescribed in the Regulations for teaching rooms is the minimum, and a higher figure of up to 5 per cent. should if possible be secured, *e.g.* in rooms where clerestory or top lighting can be arranged."

It is clear, therefore, that the 5 per cent. daylight factor should be the general objective in design.



PLAN



SECTION

Fig. 1

There has been some suggestion in the press that these values are needlessly high, and that the former value of 0.5 per cent. was adequate. The Committee argued its case for the higher standard on the obvious ground that there is still a steady and serious deterioration in vision during school life, and that good lighting is one of the ways by which this might be avoided. The case can also be argued on the ground that the former value of 0.5 per cent. daylight factor actually represents only a very low intensity of light during large parts of the year. For instance, in reasonably unpolluted districts in the south of England, during as much as four months of the year 5 or 6 footcandles would be exceptional, while for nearly two months there would be no more than 2 or 3 foot candles at best (2). Even the recommended value of 2 per cent. would represent less than 10 foot candles for about two months, and many urban districts, especially in the Midlands and North would probably have values about half as high as these. The minimum level for artificial light prescribed by the Regulations is 10 foot candles, and is itself regarded as a very moderate figure. It is possible, of course, as some have suggested, that the intensities required for natural light and artificial light are different, but the differences, if they exist, seem hardly likely to justify discrepancies of this order.

Another suggestion has been made that high daylight factors are a cause of glare. The sensation of glare does not arise from mere brightness but from strong contrasts, which the eye is not designed to accommodate. The contrast between a low level of illumination indoors and a bright sky seen through a window may be enough to be very uncomfortable and will cause a loss of visual efficiency, but the effect of increasing the daylight factor indoors is generally to reduce the contrast and relieve the sense of glare, rather than the opposite.

Daylighting and Classroom Design

It is convenient for discussion of daylighting to divide classroom fenestration into types according to the distribution of the openings. There are three major divisions ; firstly where the windows occur on one side only ; secondly, where they occur on both sides ; and finally where roof glazing is introduced.

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† The term " daylight factor," as used in the Post-war Study Report on The Lighting of Buildings, refers to the ratio between the illumination at any point indoors (usually measured on a horizontal plane) and the illumination which would be received at the same moment outdoors from an unobstructed view of the sky. It is expressed as a percentage.

At the last (1939) meeting of the International Commission on Illumination (Proceeding not yet published) a distinction was drawn between the daylight factor and the " sky-factor " at a point. The former includes reflected light as well as direct daylight while the latter refers to direct light only. Further, the daylight factor is based on the illumination from the sky as it exists at the time of measurement, whereas the sky-factor is based on the illumination from a sky of uniform brightness equal to the average brightness of the portion of sky actually visible from the indoor point.

As it stands, common practice in computing daylight factors does not take any account of contributions of reflected light, though presumably there would be no objection to doing so if any reasonable method of computation were available. The amount of reflected light is not often great enough to be an important factor.

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Case 1—Lighting from one side only

The daylight admitted by a window which virtually fills the wall of a normal classroom (length 25 feet, height to window head 11 feet) will have a value of the order of 12 per cent. daylight factor within a few feet of the window, dropping to about 1.4 per cent. at a depth of 18 feet, and to about .95 per cent. at 22 feet. These values are taken along a line normal to the window near one end of the room (as shown in Fig. 1) so as to represent conditions at the worst-lighted seats in a classroom. For comparison the figure also shows the daylight values on the centre line through the windows. It will be observed that the values are about 20 per cent. higher. The sill is assumed to be at working plane level, 2 feet above the floor.‡ All values shown allow for a loss of light of 20 per cent. due to dirt and glazing bars. The proportion of window occupied by glazing bars, piers, etc., can be assumed to reduce daylight factors *pro rata*.

If, as may be the case fairly often, there are external obstructions subtending angles of up to 15 deg. at the sill, the daylight will be reduced as shown on Curve " B " in Fig. 1. Above this angle, correspondingly sharper effects occur.

It will be seen that no classroom of normal height and with a greater width than about 15 or 16 feet will reach the prescribed standard of 2 per cent. daylight factor. It would require a window about 14 feet high to provide 2 per cent. daylight factor at the worst-lighted desk in a classroom of normal depth with moderate external obstructions.

Craft or practical rooms having a length of more than 25 feet will have a slightly greater penetration of light because of the wider window. The increase will be small particularly near the end of the room and would be offset somewhat by the higher working plane.

Case 2—Lighting from two sides

In the majority of cases it should be possible to supplement the light from the main windows by borrowed light from the corridor, or by clerestory.

Borrowed light is usually the only practical means of adding to the main lighting in multi-storey schools, and together with the main light it will give minimum values of the order of 3 to 3.5 per cent. daylight factor when an 8 feet wide corridor is used (as recommended by the Memorandum on the Building Regulations) and perhaps 4 per cent. or more where the corridor is the minimum 6 feet width. For these values it is assumed that the corridor is glazed to the height of the main classroom windows and that the classroom depth is about 22 feet; it also takes into account an additional 20 per cent. loss of light due to the double set of windows. The daylight curves are shown in Fig. 2.

It is worth noting that only the lower portion of the glass between corridor and classroom is usually of any value in allowing light to reach the desks, and the area of wall above a line connecting the middle of the classroom to the top of the outer corridor window can be left solid. Beyond the middle of the classroom the value of the borrowed light is likely to be so small as to be of no value.

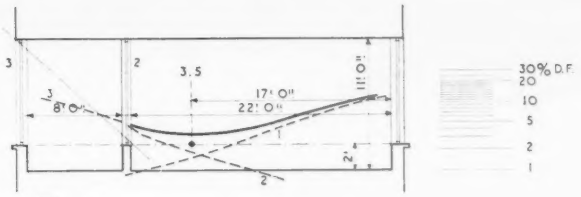

Fig. 2

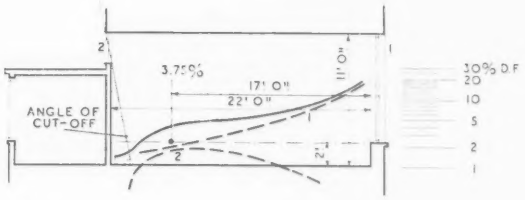

Fig. 3

In urban areas, which usually give rise to the multi-storey school, obstructions are often met with, and efforts should be made to avoid such conditions as it will be realised that these will critically affect both borrowed and main light. For instance, a continuous external obstruction subtending an angle of 25 deg. to the inner sill (i.e., of the partition) will cut down intensities to about 2 per cent. or 2.5 per cent. daylight factor for an 8 feet wide corridor and if it subtends above 42 deg. the entry of direct light to the room is altogether prevented with this height of classroom.

Clerestory lighting is commonly used in single storey schools. Its effectiveness is dependent almost entirely on the detailing of its section and its location. Thus, in the type of classroom shown in Fig. 3, which is 22 feet deep, while it is possible to get a minimum total daylight factor of about 3.75 per cent. at a depth of 17 feet (the clerestory contributing 1.8 per cent. at the minimum point), it is evident from Fig. 4, in which there are deep reveals,

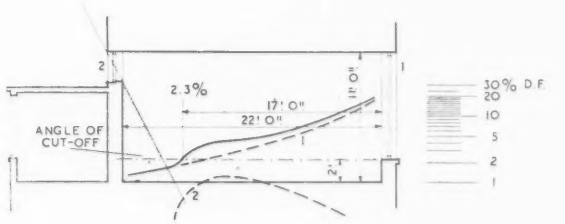

Fig. 4

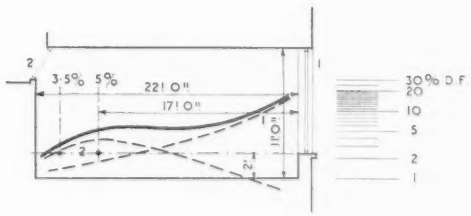

Fig. 5

‡ The Regulation requires that the stated daylight factor shall be provided " at each desk or place of work." There is, of course, some variation in the heights of desk according mainly to the age of the children. Where the age groups using a given set of classrooms can be anticipated with reasonable certainty, there seems no reason why the appropriate height of desk should not be assumed for calculations; and it may ease the problem of reaching the standard in some cases. But where there is any uncertainty the proper course is to revert to a height of about 2 feet 6 inches, which in fact is about the highest level likely to be met in school classrooms, with the exception possibly of such rooms as domestic science laboratories where 2 feet 9 inches would be appropriate.

The level of 2 feet 0 inches chosen for the examples in this note is therefore an intermediate case. For side-lighted rooms, if the working plane level is raised the window head would have to be raised accordingly. This would not be the case in top lighted rooms.

Fig. 6a

that the angle of cut-off is so much greater as to prevent the clerestory from making any contribution of direct light to the last row of desks.

A natural development of the detail would be to give the glazing a slight slope, of say 60 deg. or 70 deg., which would allow light to fall directly on the last row of desks. Fig. 5 indicates a possible arrangement of this kind and even though the area of glass is not in any way altered, the minimum levels are now of the order of 3.5 per cent. at the last row of desks, and 5 per cent. at a depth of 17 feet.

Case 3—Lighting from the top

The classrooms previously examined reveal a problem with two aspects: one is the intrinsic difficuty of getting adequate light at the back of the room, and the other is the reduction of contrast between this area and the much higher daylight factor near the window. A contrast of the order which commonly exists is sufficient to reduce the accommodation of the eye.

Several types of roof lighting were described in the Lighting Report (2) to meet these points. One of the obvious methods is to put an area of glazing directly over the back of the room, but probably a more satisfactory way is to use sloping clerestories on both sides of the room. Two variations of this are shown in Figs. 6A and B. "A" is a symmetrical arrangement which is based on a simple form of roof truss, while "B" is more freely designed to give a flat daylight curve. Minimum values are high, and in design "B" they exceed 5 per cent. at all points. In design "A" they very nearly do, and since the curve is drawn near the wall where the contribution of reflected light may be high, it may be assumed to conform reasonably well to the Code requirement. It is important to note that the total area of glass in a classroom of this kind is no greater, and possibly a little less than in a classroom of the orthodox type shown in Fig. 4, nor is the ceiling height raised. At the same time the glazing could be increased readily to give the higher daylight factors desirable for craft studies and for partially-sighted children.

In many instances it should be possible, particularly with the symmetrical truss design, to fill in the trusses so as to form large louvres across the ceiling. These should help to reduce sky-glare which would be an additional advantage. They may also be of value in cutting off glare from artificial light sources. The hood over the window in "B" is found to be useful because it reduces the light falling on the desks nearest to the main windows without affecting those further away; in other words it tends to lower the gradient between one part of the room and another. It also contributes to the reduction of sky-glare.

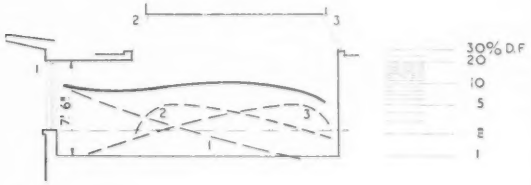

Fig. 6b

Fig. 7 has been drawn to show the whole group of curves in relation to one another. The sequence of improvement throughout the series is easily seen.

Where sloping glazing is used, there may be a problem in ensuring that the ventilating lights will not admit rain. Suitable frame sections may be obtainable which will not give this trouble, but an alternative solution would be to make separate provision for ventilation in bad weather.

The Treatment of Existing Classrooms

In many existing schools it will not be possible to carry out the changes which are necessary to reach the new daylight standard. However, some improvement may be expected from lesser modifications which do not involve major structural alterations.

If existing windows are obscured by large frames, mullions and glazing bars, these could with advantage be replaced with windows designed to have minimum obstructions of this kind. Even in fairly recent schools as much as 30 per cent. or 35 per cent. of the light may be unnecessarily excluded.

Quite a number of schools already use clerestories either to give additional light or more frequently to ensure good cross-ventilation. Here there is generally scope for improvements. The height of the clerestories might be increased by replacing any unnecessarily deep lintels and sills with shallower steel or reinforced concrete units splayed inside and out to admit as much light as possible. Also, much improvement may be made by cutting back the eaves overhang and removing cumbersome gutters. Occasionally big heating pipes put in to counteract down-draught obstruct the light unreasonably and should be moved. Some of these modifications are incorporated in Fig. 8.

Further improvements may be made by using white sand treatments on the roof of the corridor, and by the use of light tones on the sill and reveals of the windows and the walls and ceiling of the room, so as to supplement the direct light by reflection.

As a general point an external reflective pavement can also be of value in supplementing the direct lighting and may often contribute as much as 1 per cent. daylight factor to the light at the rear of a classroom.

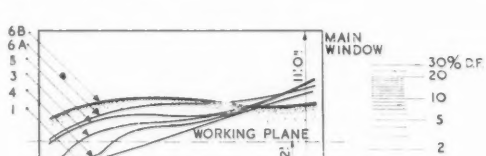

Fig. 7

Naturally, of course, it will be possible in some cases to rearrange the desks so as to take better advantage of existing or improved lighting, and to avoid sky-glare.

In some considerable proportion of existing classrooms, especially side-lighted rooms in multi-storey schools in urban districts, the measures described above may not be applicable or adequate. In such cases, when circumstances are beyond control, there will be a strong incentive to accept less than the prescribed standard of daylighting. Where no better arrangement is possible, the proper course is for appropriate parts of the artificial lighting system to be turned on by automatic switches when the intensity drops to the 10 foot candle level prescribed for artificial lighting. Automatic switching should be employed because it is almost impossible for individuals to judge with their eyes when supplementary lighting has become desirable. Automatic switching is controlled by photo-electric cells, and suitable gear can now be obtained from electrical firms in this country.

The Process of Daylight Analysis in Classrooms

Those who are unfamiliar with the analysis of daylight distribution will find it an advantage initially to carry out the computations in some detail. The best course probably is to compute daylight factors on a line across the middle of the room, and then on lines crossing at about the quarter-point and at the end of the room. Five or six points should be computed along each line at first, though four points will be enough when one is familiar with the work.

The second step in analysis is to plot each line of points on a scale so that curves can be drawn through them like the curves on the figures in this note. A logarithmic scale should be used for the purpose because the curve which results is less open to misinterpretation than a curve based on an arithmetic scale. Our eyes do not respond equally to equal changes in illumination but rather to equal proportional changes, and if an arithmetic scale is used, as on the left-hand diagram of Fig. 9, then a curve varying between 1 and 2 units will not resemble a curve varying between 10 and 20 units, though the difference will appear equal to the eye. The logarithmic scale corrects this, as the right-hand diagram shows.

A log scale may be read off from a slide-rule, or scaled off from Fig. 9 itself. It is, of course, characteristic of the log scale that there is no zero ; one merely chooses a convenient range of values, usually lying something between 0.2 and 20.0.

When the curves have been set out as described it is possible to determine where any given value will occur along any of the sections examined, and when these points have been located on plan a line can be drawn through them which is termed a daylight contour. Along this line the daylight factor will be constant at the chosen value. In view of the reference in the Regulations to a daylight factor of 2 per cent. it would be appropriate in classroom analyses to draw out the 2 per cent. contour, as in Fig. 1.

It should be noted that daylight curves and contours always follow smooth and logical courses, and any unusual diversions may be attributed in the first instance to errors in computation.

Methods of Analysis

Where vertical glazing only is used in classrooms, analysis may be made without appreciable error by the two well-known diagram methods attributed respectively to Waldram (3) and Swarbrick (4). In each case the best known form of the diagram is for unglazed openings, and a reduction of 10 per cent. on all readings should accordingly be made to allow for loss of light on passing through the glass. A modified form of each diagram corrected for vertical glazing is also available.

It is possible that the diagrams for unglazed openings could be used successfully for sloping roof glazing, but there are situations where this might involve appreciable error (as for instance when a reference point is nearly in line with the plane of the glass).

The Building Research Station protractors can be used in all circumstances (6).

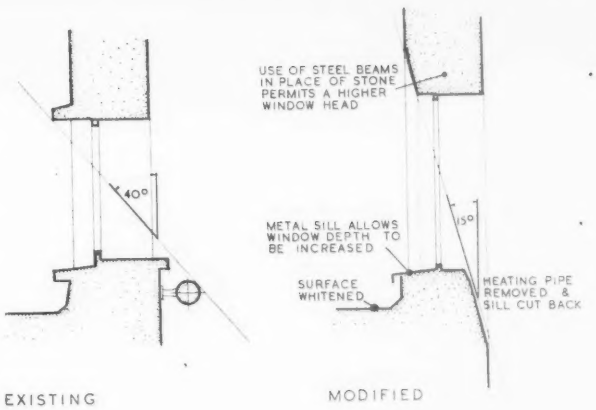
40°
USE OF STEEL BEAMS IN PLACE OF STONE PERMITS A HIGHER WINDOW HEAD
15°
METAL SILL ALLOWS WINDOW DEPTH TO BE INCREASED
SURFACE WHITENED
HEATING PIPE REMOVED & SILL CUT BACK
EXISTING
MODIFIED

Fig. 8

The Graded Daylight Factor Tables by Smith and Brown (5) were designed primarily for housing work and are not intended for classroom analysis.

Acknowledgment

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(3) Department of Scientific and Industrial Research. Illuminating Research Technical Paper No. 7, published by H.M. Stationery Office. (Temporarily out of print).
(4) Easements of Light, by John Swarbrick.
(5) The Natural Lighting of Houses and Flats, with Graded Daylight Factor Tables, by T. Smith, M.A., F.Inst.P., F.R.S., and Miss E. D. Brown, published by H.M. Stationery Office, price 4d. net.
(6) Protractors for the Computation of Daylight Factors, Building Research Technical Paper No. 28, by A. F. Dufton, published by H.M.S.O., price 4d. net. The Protractors are also available from the Stationery Office, price 2s. 6d. per pair or 10s. for the normal set of four pairs.

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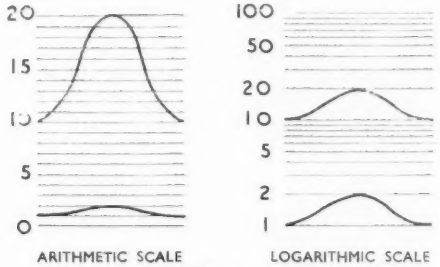


Fig. 9

THE R.I.B.A. LIBRARY REORGANISED

S. Rowland Pierce, R.S. [*F.*]

Honorary Secretary, the Library Committee

During the course of its hundred and twelve years of existence the Library has grown to be probably the largest and certainly the most used collection of architectural books in the world; as a specialist library it is in the first rank, both in this country and abroad.

Since the removal from the old quarters in Conduit Street and the rehousing in the more spacious and specially designed accommodation of the new building, the growth of all sections of the Library has been greatly intensified. With post-war reorganisation a new era of development opens; the temporary eclipse of the war years meant that all the more valuable books, manuscripts and drawings were dispersed; some in London and elsewhere, some to a safe depository as far away as Wales. During this period when only a nucleus library for loan and reference could be maintained under considerable difficulties, with short staff and shorter supplies, the whole organisation went on growing. The publication of new books was, of course, greatly reduced, but there was much material that had to be acquired, especially in the class of reference works, and the collections were greatly enhanced by numerous gifts and bequests of valuable books and drawings. No binding could be done in this period; older books in need of repair had to be stored to await better times; periodicals and pamphlets suffered in the same way. But, in spite of all the difficulties, the Library went on with its work and its services to members and others were sustained throughout the war and include amongst other emergency activities the supply of many thousands of books to prisoner of war camps through the Red Cross; its doors were never closed. For this the Institute has to thank the lately retired Librarian, E. J. Carter, and his depleted but devoted war-time staff.

The Library is now back to its own quarters on the third floor, leaving its pleasant but over-crowded temporary war-time home on the first floor; the latter is to be arranged as the Members' Room where the Library will maintain a number of periodicals, in addition to those which can be seen in its own Periodical Room.

The move has presented many problems for the Library Committee and the staff. The way was prepared by the war-time Library Reconstruction Committee, extracts from whose excellent report were published in the JOURNAL of November last. The intervening months have been occupied by preparations for the move; first more room had to be found, for the Library was already outgrowing the generous accommodation originally planned for it. To meet this problem and to provide the needed extra space, the Institute has acquired a lease of the top floor of 68 Portland Place. The rooms thus made available have been replanned to link up with the main Library and will provide much shelving and stack space to relieve pressure elsewhere, together with study rooms for students and for special research. More working space for the staff had to be found and this also has been done; the lighting and acoustics of the main Library have been overhauled and considerably improved during the course of the alterations and redecorations carried out as part of the programme of removal. The Library Committee also had to face the serious problem of how the move was to be made and all the scattered parts of the collection brought together again; much as they regretted the decision, there was no other course but to close the whole organisation for use by members and readers alike, for a sufficiently long period to enable the staff to "spring-clean" and "get straight." As these words are being written, the work is going on apace and when the Library reopens, in mid-September, it should have every appearance of being fully ready to carry on with its various functions, at any rate, to the eyes of the users; behind the scenes, however, for many months and perhaps for a year or two, the arrears of war-time and the gradual reorganisation resultant on the Reconstruction Committee's recommendations will be steadily dealt with.

No modern library, and least of all the Institute Library, must become or be looked upon as a mere "depository" and museum; it is and must always be a live organisation and an up-to-date instrument for service; it cannot wait passively to be used, it must, rather, seek out current problems and always be prepared to face all the information requirements of members almost before the latter realise that their problems exist. The Institute Library was founded and still exists primarily for the use of members and of students of the R.I.B.A. This fundamental fact, however, must not be allowed to exclude other and important co-operation with other professional and research bodies both at home and abroad and the mutual exchange of facilities which these relationships bring to our own Library.

The policy is, and will continue to be, a balanced whole catering for four major sections of user: the practising member, with his day-to-day problems, the author and research student, dealing with either historical or modern technical matter, the undergraduate student, with all the implied liaison with the architectural and secondary schools of the country and the non-member reader, whether layman, client or member of another profession. To keep this balance and an "up-to-the-minute" usefulness requires constant vigilance and review on the part of both the Committee and the Library staff; every confidence can be felt that this programme will be carried out in the years ahead.

It remains to remind readers of the main elements of the collection. The largest section is naturally that of "Books," of which the main divisions are the Loan library and the Reference library. The former is a very busy part of the organisation, dealing as it does with both London and very considerable postal loans to the rest of the country. The Committee often has to duplicate and, in the instance of books in great demand, provide as many as six or eight copies of a book to meet the requirements of borrowers. Within the limits of its purchasing grants and its bequest funds, the Library maintains its stock by studying the known interests of its readers, by constant examination of all possible sources of information on new publications and of the catalogues of book sales.

The second large section of the Library is that concerned with "Periodicals." In all about 120 periodicals are received from sources in this country and abroad and more than 75 per cent. of these are of considerable importance. Many war-time gaps exist in the runs of foreign periodicals, but these are now being largely filled in; many missing volumes have been received recently from Austria, Belgium, France, Germany, Holland, Italy and Scandinavia and it is hoped, in due time, that the continuity of all periodicals will be complete.

The valuable Prints and Drawings collection has increased during the war as a result of a number of generous gifts. The Library Committee is formulating a policy for building up this section into a central collection of architectural drawings of all kinds, arranged and catalogued for easy reference. To do this much detailed and somewhat difficult work lies ahead.

The "Information Bureau" is the youngest section of the Library; it receives, classifies and makes available all that difficult material which is generally in the form of pamphlets, newspaper cuttings and information memoranda of every shape and relevant variety; Government publications and records of legal cases are but two main divisions of its many information files.

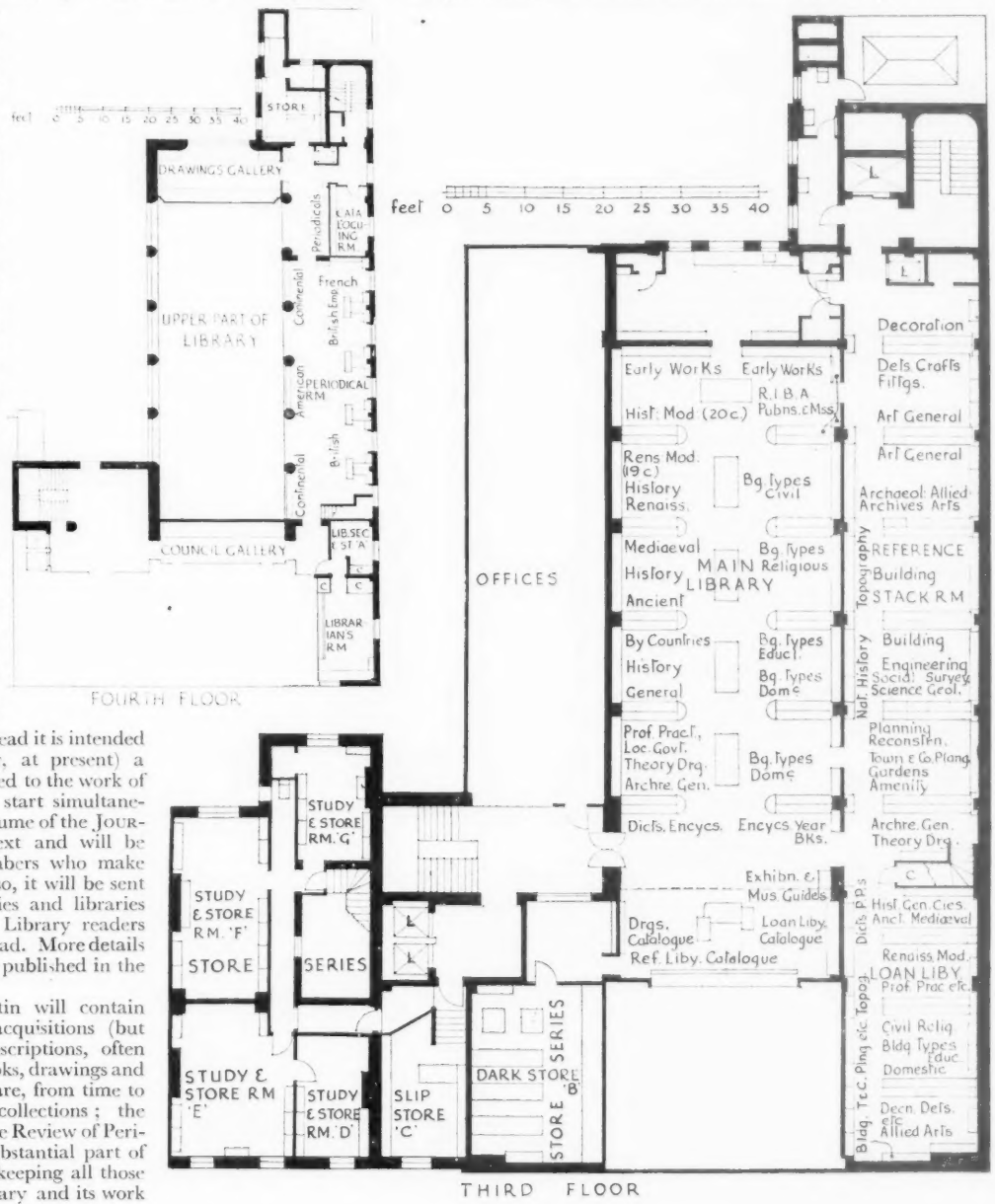
In addition, two newer and it is hoped potentially useful subsections, are those of Ordnance Maps and a Microfilm library; but, here again, war-time conditions and restrictions have hampered recent development.

The fifth, and in some ways the most important section of the Library, ranges itself around those multifarious activities which are classed under the heading "Documentation." A great deal of the work of this section goes on quietly but continuously "behind the scenes"; cataloguing, filing, and, in fact, everything which facilitates easy use of the Library and which provides all those means whereby a reader is led to the information he requires. Apart from those who, using the Library frequently, realise how important it is that catalogues and indexes are easily usable and up-to-date, readers of the JOURNAL in the past have met "Documentation" in the pages given up to "Accessions Lists" and "Review of Periodicals." With the reorganisation of the JOURNAL's future development, some indication of which was recently given in these pages, the two items mentioned will be omitted, giving more text-space for the JOURNAL. Instead it is intended to publish (quarterly, at present) a Bulletin entirely devoted to the work of the Library. It will start simultaneously with the new volume of the JOURNAL in November next and will be circulated to all members who make application for it; also, it will be sent to all associated bodies and libraries and to non-member Library readers both at home and abroad. More details of the Bulletin will be published in the October Journal.

The Library Bulletin will contain notes of important acquisitions (but not reviews) and descriptions, often illustrated, of older books, drawings and manuscripts, as these are, from time to time, added to the collections; the Accessions Lists and the Review of Periodicals will form a substantial part of the new publication, keeping all those interested in the Library and its work in touch with up-to-date information. The Bulletin when filed or bound will, in time, form a valuable reference work and the supplementary to the existing printed Catalogue.

It is hoped that all those members, Allied Societies, Schools of Architecture and others who wish to keep in close contact with what is, in fact, the central architectural library of the Empire will take early steps to ensure that their requests for the Library Bulletin are made as soon as possible.

These brief notes have been written as an introduction to a new and vigorous period of Library activity. It is also a reminder, if indeed such is required, of the very large asset and heritage which the profession has in its keeping and which is maintained at the Institute for its use. The Library has emerged from the war years increased in size and with enhanced strength.



French pillar box 1850

STREET FURNITURE

PART II

MARGARET N. DOWNIE [*A.*]

A THESIS AWARDED DISTINCTION IN THE R.I.B.A. FINAL EXAMINATION

(Concluded from August Journal)

Pillar Boxes.—Although there has been an organised postal system ever since the reign of King Charles I, the pillar box did not come into general use until the middle of the nineteenth century. Before that date letters had to be left at the Receiving Office. Pillar boxes were used on the Continent before they were established in England. A box was set up experimentally in Jersey in 1852, and in Cheltenham in 1854. In the same year six were tried out in London. They were sited in Ludgate Hill, Fleet Street, Strand and Piccadilly, at half mile intervals. The box was square in shape with a large knob on top, and was designed by an engineer by the name of Cowper.

There is no evidence to show that any of the succeeding pillar boxes were square. The next model must have been the tall fluted type, with a marked entasis after the manner of a column, from which the pillar box received its name. There is still one of these in use in Eton High Street.

There are still quite a few of the hexagonal type in use in London. The one illustrated middle left on the opposite page was erected in 1856, and is said to have been hailed by the public with a burst of approval. It is made of cast-iron, like all other pillar boxes, but the ornaments are of brass and were screwed on afterwards. There is a very fine china compass set in the top, and a dutch tile in the posting aperture to facilitate the fall of letters. The post bag is held inside by metal rings.

The standard model meanwhile has returned to the original round shape, but is more like a barrel than a pillar, and is no longer fluted. It entirely lacks the air of quiet distinction of its ancestor, but is doubtless more suitable for mass production. Being circular, and therefore facing all ways, it is rather regrettable that one can only post a letter from one side. It would be convenient if one could reach the aperture without getting out of the car, or off the bicycle, whichever the case may be.

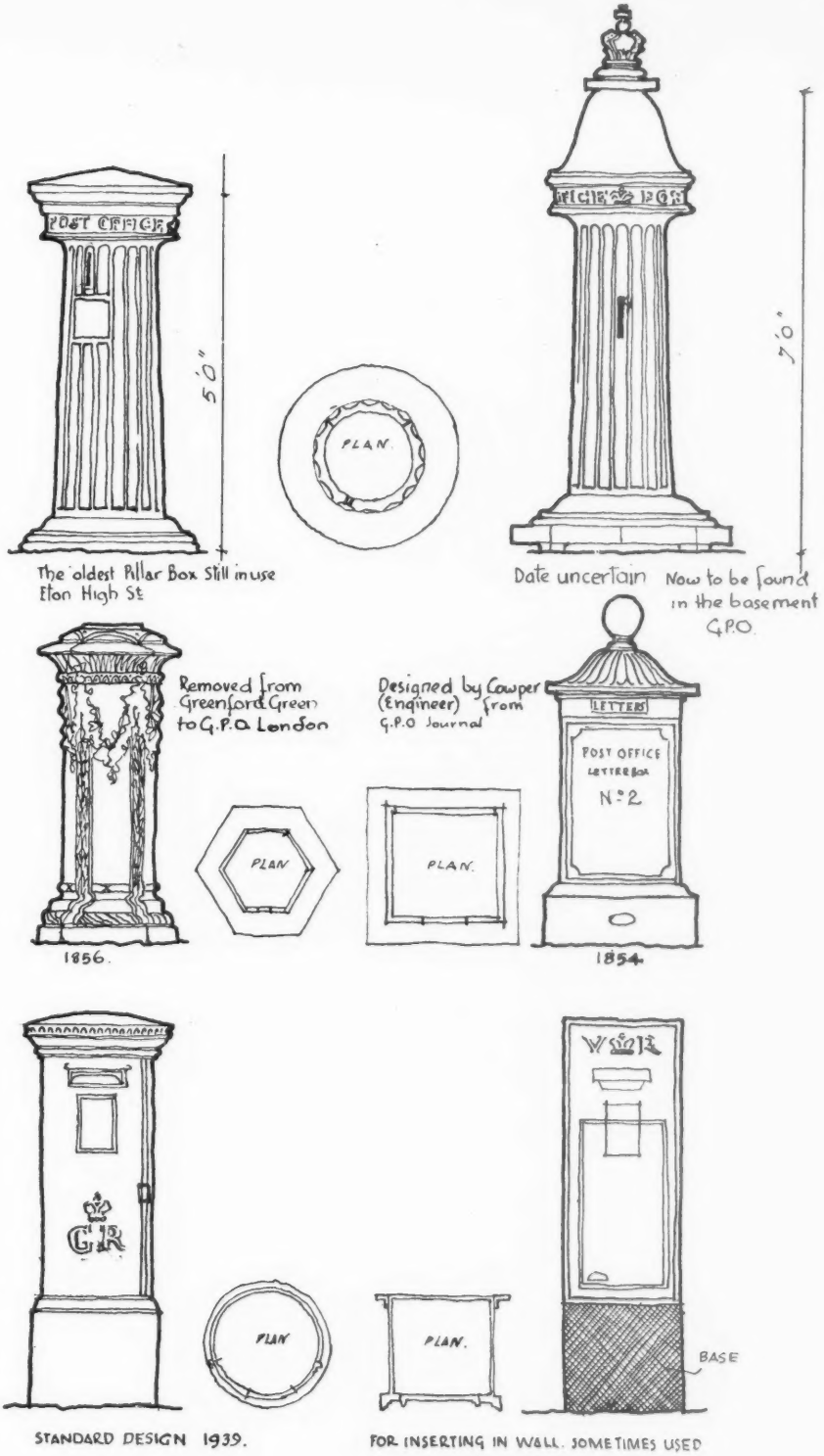
Street Names.—There are still quite a number of seventeenth and eighteenth century street nameplates in London. The practice was to carve the name and date on a block of stone about 1 ft. high and 2 ft. long. They are often rather difficult to read, but some of them are nicely carved and the lettering is nearly always good. A few have found their way into the museums, and a great many must have been destroyed.

The importance of adequately displaying street names has been receiving increasing attention as the tempo of traffic has increased. By the end of the last century most streets had received a name plate at each-end, and at junctions but the signs are far too small for present day needs.

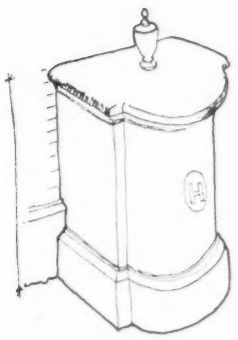
Parish boundary marks are another relic of bygone days. They are to be found in great numbers in the City of London, where the rivalry between the many parishes has continued for generations, and caused the erection of property marks as well as boundary marks. There are a great variety of designs, and dates ranging from 1784 to 1914. Presumably the practice has now ceased.

The most common contemporary nameplate is a cast-iron plate with a narrow black rim, with black lettering about 6 in. high and the district number in red. Another less frequent type has white letters painted on black tiles and fired. Each tile takes one letter, and the whole name is made up of the separate units and set in a wooden frame. At the moment they are fixed at heights ranging from 2 ft. to 10 ft. above the ground. Name plates should be set at a height of approximately 4 ft. from the ground, so as to be easily visible from the driving seat of a car. It would seem desirable to have illuminated signs which operate on the same circuit as the street lamps. Most local authorities try to place their name plates adjacent to the nearest street lamp, but a standard sign, visible by day and artificially illuminated by night would certainly be an improvement. This is already being done at important road junctions with long distance direction signs, and the practice could be extended. Residential streets could have illuminated panels fixed to the wall or railing on the left hand side at every junction with another road, so that one would always know where to look.

Fountains and Drinking Troughs.—The cholera epidemic of 1854 led to many of London's wells and pumps being sealed up, a large number of them having been found to be infected. The temperance societies were among the first to realise the necessity of providing drinking water for casual comers to London. The disappearance of the public pump meant that transport drivers had nowhere to water their horses except the horse-troughs provided by the local inns, and custom had it that the driver watered his horses free of charge and patronised the inn for a drink of ale at the same time. Apart



British pillar boxes. The standard box has now returned to its original round shape though without fluting



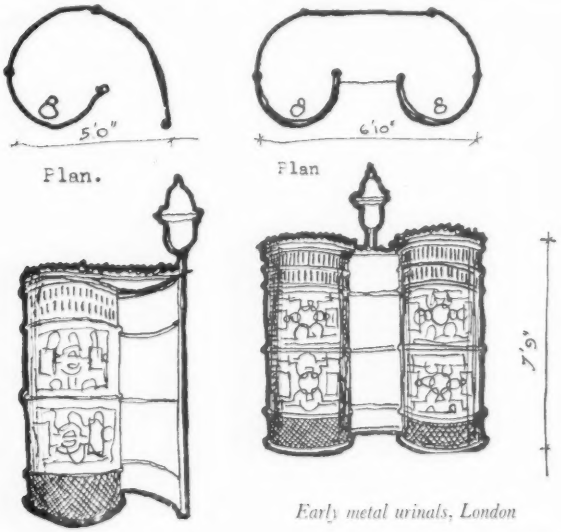
Cast iron cover for hydrant, from Brick Court, the Inner Temple

from this, in the days when tea and coffee were comparative luxuries, there was practically no alternative to ale or porter, both of which were cheaper and often of very inferior quality. The water supply was so bad at the time that it was often considered unsafe to drink it even when it was available.

The Metropolitan Drinking Fountain Association was founded in 1859. It was a purely voluntary society, whose only aim was to supply drinking water free of charge to anyone who wanted it. By 1861 it had supplied London with 85 fountains, and in seven years from then there were 250 supplied by them alone in the Metropolitan Borough. At first the fountains had money boxes attached to them, but the cost of collecting the money combined with the need for safeguarding the donations from theft led to the idea being abandoned. This remarkable society had its own workshop where many of the fountains were made, and the ones in use were maintenanced. The Works Department, as it was called, was abandoned in 1898, and Messrs. William Whitehead undertook the work, as well as providing designs free of charge, "thereby saving the artist's fee." The words "cattle trough" were added to the title later on, and the Association, by 1908, had supplied 778 drinking fountains and 1,445 troughs (which usually have drinking fountains attached to them).

Until 1870 all the fountains were made of cast-iron. Neither wood lined with zinc nor stone were found to be sufficiently durable, and until recently all fountains and troughs have been made of polished granite. Owing to the prohibitive cost of the material, experiments are being made with a pre-cast concrete drinking trough which it is hoped will be suitable for mass production. It is to be hoped that the Association will obtain the best advice in the design of their standardised fountain. Until now the good quality of their materials and craftsmanship have been unquestionable, but æsthetically their designs have not always been pleasing.

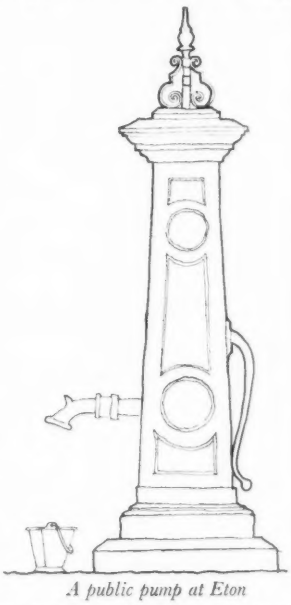
Nearly all London's fountains are memorials, erected by individuals to commemorate a personality or a significant event.



Early metal urinals, London

Personally I have never seen one of marked architectural merit, and do not know of any erected before the latter part of the last century. It is surprising that this should be the case, as a fountain is a charming thing, and has been a recognised decorative feature for generations, not only in England but also all over Europe. London Transport has supplied some of its underground stations with a standard fireclay drinking fountain, but apart from them, I know of no other public body which recognises the need.

Public Conveniences.—London's public conveniences have largely gone underground, where a tangle of cast-iron railings and an ornate ventilation stack pretending to be a lamp-post is all that testifies to their existence. There are still a few of the cast-iron kind left in some districts, however, which are relics of more primitive days. Apart from the somewhat crude ideas about sanitation which were current at the time, they are really rather nicely designed. The material chosen was ideal, as the perforations in the all-over patterned sheet metal which form the walls allowed the maximum of air to circulate, and they are capable of being repeated in any number of units, as each cubicle forms a panel.



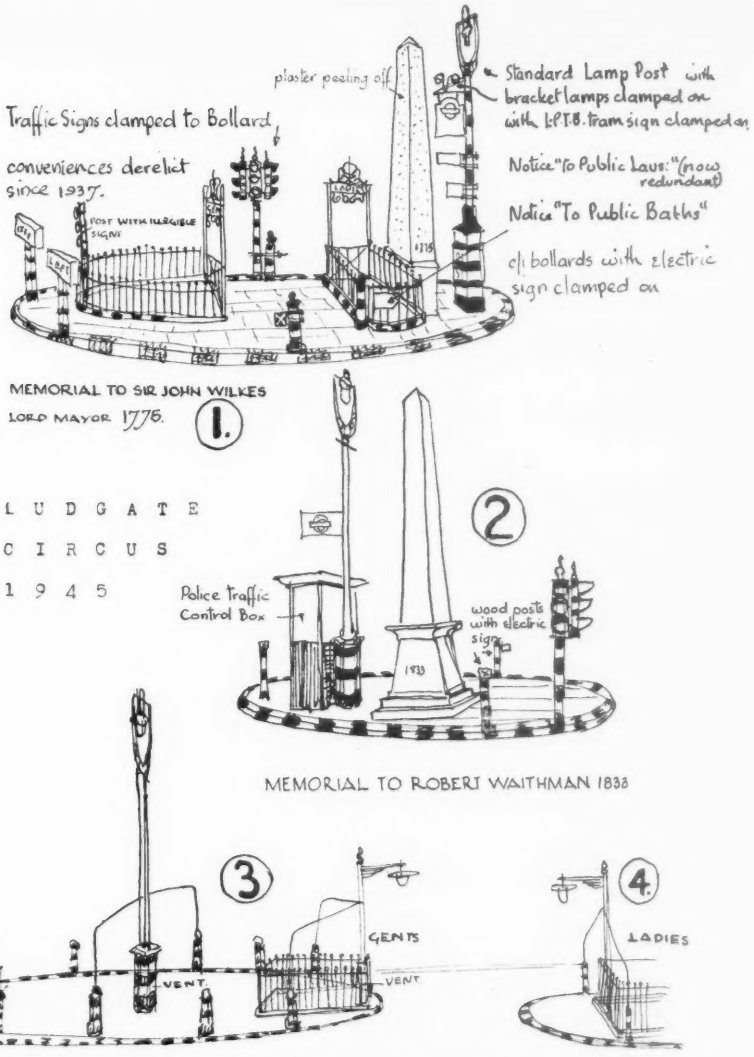
A public pump at Eton

They must have come into use some time round about the 1850's, and the design of the actual structure has hardly been modified since. The conception of separate closets for public use was not general at first, and a range of seats was provided over a trough, which was used without water or drains, and emptied once a day. Later a system of flushing them out with water was developed. This was done two or three times a day by an attendant, who also was supposed to keep the convenience clean. Then came the automatic flushing tank, and separate buckets under each seat. The guard plate over each cubicle was to prevent people standing on the seats.

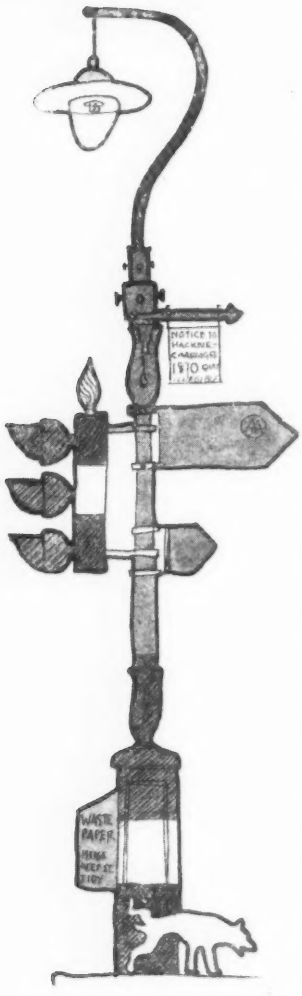
During the daytime there is now fairly adequate lavatory accommodation in London, and the public convenience is not as necessary as it was. The underground stations, multiple stores, theatres and cinemas all provide them, and it is really only at night when a large number of public and semi-public buildings are closed that they are needed. Under the pavement is really as tidy a method of accommodating them as any, in circumstances where they cannot be included in existing public buildings. In the suburbs, where the scale of the surrounding buildings permits, they are better incorporated in small buildings together with waiting rooms, 'bus shelters, or cigarette, newspaper and flower kiosks.

Gullies, Gratings and Covers.—London's underground services need a great number of access panels of different types. The gas, electricity and telephone services usually locate their mains under the pavement. The coal cellars of nineteenth century houses also have small round coal chutes in the pavement. The water supply and surface water drainage manholes are usually in the road, while the sewerage system not only needs access panels, but ventilation stacks as well.

Cast-iron was the usual material for all these articles in the



Ludgate Circus in 1945. A story of unregulated street clutter



Drawn from "life" and all too typical of to-day

nineteenth century. Some of the manholes had wood inset blocks and were very heavy and expensive. (There is one advertised in Harvey's 1897 catalogue weighing 7 cwt. and costing £10). Others were provided with a sinking to take a concrete finish. But the most usual finish was some sort of raised pattern to reduce the tendency to slipperiness of the cast-iron.

Recently special semi-steel grades of metal have been used successfully, and are found to be less liable to break. All-steel gratings for gulleys are also in use, and for steep gradients a gulley with bars set at an angle has been designed. Manholes and covers are also being made of precast concrete.

Sand Bins.—London's sandbins show a remarkable unity in character in whatever district they are found. The shapes are many and varied, but galvanised sheet metal is nearly always used. They are usually riveted together, and many of them have very nice strap hinges. They are mostly of the closed variety, with a lid and small door at the bottom. Some are equipped with very complicated locks, while others remain open for anyone to help themselves.

At one time grit was only applied to such materials as wood blocks and stone setts, and generally only during frosty weather. The practice increased with the general adoption of impervious surfacing, many types of which are apt to be exceedingly slippery, and gritting has been found to be necessary whenever the road surface is wet. This condition, however, is now gradually being overcome, and the amount of gritting required has already declined substantially. Although sand bins are still in general use in most districts, they are likely gradually to diminish in numbers as more modern methods of mechanically gritting the road surface begin to the practised.

Street Clutter.—The drawing above is no exaggeration. It is happening everywhere and is sometimes unavoidable. Lamp standards, even when they are actually designed to perform double purpose, seldom look good, but one post is less obstructive on a busy footway than two posts, and therefore it is quite often done.

Lamps are sometimes bracketed on to trolley poles, stop signs on to lamp-posts, and sometimes clocks on to lamp-posts. London Transport have done some composite sign and lamp-posts, sometimes with seats round the base. But clutter is another thing and can be easily avoided.

In the City and Central London the furnishing of the streets has been gradually carried out over a period of years. An analysis of the equipment of Ludgate Circus shows how long it took to reach the present state of disorder, which is apparent in greater or less degree at every road junction of importance in London.

In 1775 a small obelisk about 30 ft. high was erected to commemorate the death of Sir John Wilkes. At that time the site chosen was a magnificent one, with a fine view of St. Paul's Cathedral up Ludgate Hill and the river not far distant. In 1883 a somewhat similar obelisk was erected opposite to commemorate the death of Robert Waithman. A contemporary print shows it encircled by railings and lighted by two small bracket lamps, now removed. Before the end of the century the bridge was built at Blackfriars, and later a cast-iron railway bridge obliterated the view up to St. Paul's Cathedral. Then two small conveniences were built and Sir John Wilkes's memorial became an island, and a tall lamp standard was erected within three feet of the obelisk and a crop of very debased bollards was added. The contribution of the twentieth century was a comparatively modest one, consisting of traffic control signals, a London Transport notice clamped to the lamp-post (lighted by two bracket lamps fixed to the bracket) two very shoddy illuminated "Keep Left" signs, a post from which the notices had been removed, and three notices (two of which are now redundant), "To the Public Conveniences," "To the Public Baths" and "To the Gas Cleansing Station."

A somewhat similar fate befell the memorial to Sir Robert Waithman, except that instead of public conveniences a City police traffic control box was erected. The story does not end here, however. The two conveniences were found to be too small for present-day needs and were abandoned, and two new ones erected within a few yards. These are furnished with modernistic railings and lamp standards, and encircled by bollards (dated 1869) which have had small holes drilled in them in order that they might ventilate the conveniences below. The bollards are illuminated in the most curious fashion, the electric cables being carried up to a height of about 8 feet and carried overhead to the nearest lamp standard. Six years of war has contributed to the air of neglect and shabbiness which makes Ludgate Circus as depressing a place as one could wish to be in.

The disfigurements of the new roads radiating out of London is of a different order. It is not the accumulation of generations, being a comparatively recent development and is largely due to a lack of fastidiousness on the part of the authorities, coupled with a genuine need for economy.

Conclusion.—Until recently the streets have been furnished over a period of years by a number of different authorities, who have not taken into account the cumulative effect of their equipment, although mostly considerable care has been taken in the design of each individual article. Road junctions and roundabouts are the places where the resultant disorder is most apparent. It is there that a great number of traffic signs are necessary, and where trolley poles cross each other, and the pillar box, fire alarm, telephones and underground lavatories are invariably to be found.

The problem has no easy solution and is dependant on circumstances. Some of the articles must retain their standard pattern (for instance a pillar box must be easily recognisable). Others can be combined, such as traffic direction signs and other directional notices. Telephones, 'bus shelters, newspaper kiosks and cabmen's shelters can be combined to form a "comfort station" (which is more frequently done in the United States and Europe than here). The use of black and white paint can be kept to a minimum. (Although it is recommended by the Ministry of Transport for all traffic signals, it should not be used indiscriminately, thereby defeating its own object of making the signals conspicuous). Only equipment which is strictly

Good street furniture by London Transport

necessary should be retained, and that must be carefully arranged and kept scrupulously clean and in good order.

The furniture for main traffic routes (Class A) is likely to become more and more standardised. The height, overhang and spacing of lamp-posts are already beginning to conform to the Ministry of Transport's recommendations on the most important roads. Standardised illuminated signs and traffic signals give a feeling of continuity as the road passes through different districts administered by different authorities. The Ministry already recommends a standard of minimum light intensity to be maintained on all Class A roads and to this should be added a uniform colour of light rays.

Individual boroughs have the opportunity to develop their own designs and colour schemes, and to control the layout and siting of the equipment in their own streets and squares. The control of unsightly hoardings and untidy petrol stations as well as the general background is equally important. Although the co-ordination of the work of the various authorities is a difficulty, some good results have already been achieved. Those chiefly concerned with street furniture are : London Transport, London County Council, General Post Office, Metropolitan Police, Royal Automobile Club, Automobile Association and the local authorities. London Transport in particular has had some very interesting results. At some of their new stations lighting, traffic signs, shelters, kiosks, advertisements, seating, telephones, lavatories and tree and shrub planting have all been considered as a whole, and also separately in the minutest detail. Carefully chosen and wisely standardised street furniture, scrupulously maintained and overhauled, and properly sited, would do a lot towards the improvement of London's streets.

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REPORT OF THE SPECIAL COMMITTEE ON ARCHITECTURAL EDUCATION

The Council of the Royal Institute of British Architects have now received the recommendations of the Board of Architectural Education upon the various recommendations made in the Report of the Special Committee on Architectural Education. The Council before considering the various recommendations in detail gave, at the request of the Board of Architectural Education, special consideration to the question of the training of Junior Assistants. That is to say, consideration to methods of training alternative to that offered by the Schools of Architecture whose examinations are recognised as exempting from those of the R.I.B.A. In the view of the Council the training of the Junior Assistant is a problem influencing the general consideration of the Report, which rightly stresses the importance of school training but does not deal with the external examinations proportionately.

The Council have approved the recommendation of the Board that steps be taken to intensify the R.I.B.A. collaboration with those schools which provide by means of evening or part-time courses facilities for the preparation of those who wish to take the R.I.B.A. Examinations externally. This is not the introduction of a new policy, for it has always been the policy of the Royal Institute to assist by all available means those institutions providing tuition for those who cannot attend full-time courses of study. The Council have asked the Board to submit detailed proposals for securing an increased degree of collaboration with the above schools.

The recommendations made by the Special Committee on Architectural Education have been considered by the Council and their decisions are noted in italics below.

PRE-VOCATIONAL EDUCATION

(1) That all candidates for admission to Probationership of the Institute should be required to have passed one of the examinations approved from time to time by the Council. They shall be required to have passed in English and Mathematics but in other subjects in which a pass standard is also required they may be permitted to exercise such freedom of choice as the conditions governing the examination may allow.

The Council have approved this recommendation but in view of the recent and pending changes in the national system of education the Council will retain discretionary powers for dealing with cases of exceptional hardship.

(2) That in the event of future legislation prescribing a period of national service, or of there being for any other reason an enforced break between general and professional education, prospective architectural students be advised to spend this period, if permissible, in rendering some form of service in connection with building operations, preferably under the direction of a Clerk of Works.

The Council have decided to take no positive action on this recommendation on the grounds that there is no reason to expect that architects would be given preferential treatment during a period of national service and that general service shared with other members of the community might benefit rather than otherwise the student taking up architecture.

THE SCHOOL CURRICULUM

(3) That the following subjects should be comprised in the curriculum of a Fully Recognised School :—Design, the Technique of Presentation, the Theory of Architecture, the History of Architecture, Construction, Services and Equipment, Quantities and Estimates, Specification, Surveying, Town and Country Planning, Professional Practice, and Practical Experience.

(4) (i) That the minimum length of the qualifying curriculum in a Fully Recognised School should continue to be five years, of which four and a half should be spent by the student working under direction in the school.

The Council have decided to forward these recommendations to the Headmasters of the Recognised Schools of Architecture for such action as they may consider necessary.

(ii) That a basic normal course should be pursued by the student during this time, a course which may vary in inessentials, but which should not be overloaded by pseudo-scientific accretions and which in no circumstances should attempt to anticipate advanced work in either research or experiment.

The Council have this recommendation still under consideration.

(iii) That all specialisation, whether in a particular department of architecture, in decoration, construction, or urban and rural planning, should be regarded as the province of the post-graduate student.

(iv) That the qualifying curriculum should remain specifically architectural and that no type of hybrid course leading to a composite qualification, such as that of "Architect-Engineer" or "Engineer-Architect" should be recognised by the Institute.

Design

(5) That, bearing in mind the extent of the services which the architect should be equipped to render in the spheres of urban, suburban and rural housing, more attention should in the curricula of the Recognised Schools be paid to the study of domestic work than is at present given to it.

(6) That the tendency of students to choose, as the subjects of their final thesis designs, programmes that are at once both too large and too complex should be discouraged.

(7) That, as the primary object of the curriculum is to develop the creative capacity in Design, the thorough working out of a design thesis should be accepted as the normal culmination of the qualifying course rather than the production of a written dissertation.

The Technique of Presentation

(8) That the Recognised Schools should be advised to consider the advantages of substituting topographical for life drawing.

The Theory of Architecture

(9) That courses in the Theory of Architecture should be established in every Recognised School, that they should extend throughout not less than four years and that they should include the study of the history of Architectural Theory.

The History of Architecture

(10) (i) That courses in the History of Architecture should invariably extend over not less than four years, should carry the study with which they are concerned up to the present day, and should be as comprehensive as possible.

(ii) That an outline of the history of painting, sculpture, decoration, furniture and the other crafts should either form part of the course in Architectural History or be dealt with in a supplementary course or courses.

(iii) That the measured study of approved buildings should be specifically associated with the study of Architectural History.

The Council have decided to forward these recommendations to the Headmasters of the Recognised Schools of Architecture for such action as they may consider necessary.

Construction

(11) (i) That in the teaching of Architectural Construction principles should be consistently stressed.

(ii) That no attempts should be made to render the prospective architect wholly independent of the services of other experts and specialists and particularly of the civil or structural engineer, since that aim could only be achieved by subordinating or totally eliminating those studies—above all the comprehensive study of design—which give to the curriculum its architectural character.

(iii) That, on the contrary the student should during his course be prepared as far as possible for effective and sympathetic collaboration with the engineer and with others with whom he will later have to co-operate in practice.

The Council have this recommendation still under consideration.

The Properties and Uses of Building Materials

(12) That every Recognised School should seek (i) to acquire (*a*) a representative collection of materials used in building and an extensive range of full-size constructional models; (*b*) suitable accommodation for the display of such exhibits; (*c*) a laboratory or laboratories for demonstrating the behaviour of materials under various tests: (*d*) a workshop for demonstrations of craft work; (ii) to secure the services of a competent demonstrator with craft experience.

General Construction

(13) That the practice of arranging for students to pay regular visits to works in progress and of requiring them to make notes and sketches and to submit reports on the works visited should be generally adopted in the Schools.

(14) That specific instruction in building organisation should form part of the Construction Courses in all Schools.

Structural Design and Calculations

(15) That, in the teaching of Structural Design, calculation should be treated as the process by which the soundness of Structural Design is verified, not as the method of approach to it.

Services and Equipment

(16) That every Recognised School should endeavour to form, in addition to a comprehensive and carefully selected collection of building materials and constructional models, a representative collection of approved examples of the various kinds of equipment used in buildings and to obtain suitable accommodation for the display of the collection.

Working Drawings

(17) That, in the preparation of Working Drawings, more attention should generally be paid to the study of full-size details.

The Council have decided to forward these recommendations to the Headmasters of the Recognised Schools of Architecture for such action as they may consider necessary.

Reports of the Architectural Science Board

(18) That the Reports of the Architectural Science Board on "The Place of Science in Architectural Education" and on "The Teaching of Construction" should be brought, without prejudice, to the notice of the Recognised Schools.

The Council have approved this recommendation with the omission of the words "without prejudice."

Quantities and Estimates

(19) That the teaching in Quantities and Estimates should be of an introductory nature, with the object only of enabling the student to determine costs with reasonable accuracy and to familiarise him with the established procedures by which these costs are ascertained.

Specification

(20) That, when laboratory accommodation and equipment are available, teaching in the subject of Specification should be associated with demonstrations in the properties, behaviour and uses of materials.

Surveying

(21) That consideration should be given by the Schools to the advisability of placing the introductory course in Surveying at an early stage in the qualifying curriculum.

Town and Country Planning

(22) That, to give Town and Country Planning its due place both in the pre-graduate and post-graduate education of the architect, every fully Recognised School should provide (*a*) introductory courses in the History, Law and Practice of the subject during the last two years of the qualifying curriculum; (*b*) post-graduate courses for the benefit of students able to pursue further study in this field.

Professional Practice

(23) That arrangements should be made for discussions to follow the lectures given in the Professional Practice course.

The Council have decided to forward these recommendations to the Headmasters of the Recognised Schools of Architecture for such action as they may consider necessary.

Practical Experience

(24) (i) That the Schools should consider the advisability of interposing between the end of the third and the beginning of the fourth sessions a period of approved Practical Experience.

The Council have this recommendation still under consideration.

(ii) That the period of approved Practical Experience to be required of every candidate for admission to Associateship of the R.I.B.A. should be of not less than eighteen months' duration.

(iii) That of this period twelve months should be subsequent to the passing of any final examination recognised for qualifying purposes by the Institute.

(iv) That a Certificate or Certificates covering the whole period of Practical Experience should be submitted by the candidate, the certificate or certificates to be signed by the employer or employers concerned and endorsed by the Head of the School in which the candidate has received his training or by the Chairman of the Board of Architectural Education, and to state in detail the work on which the candidate has been engaged.

The Council have these recommendations still under consideration.

The Limitation of the Curriculum

(25) That, if the greater part of the first year is devoted to the pursuit of general cultural studies, the qualifying curriculum should be extended from five to six years.

School Examinations

(26) That the Schools should consider the advisability of eliminating at an early stage students of insufficient promise by (*a*) raising the standard of the First Examination of the qualifying course; (*b*) adopting a regulation which would debar a student who failed twice in studio work in any sessional examination, other than the Final, from proceeding further with his course, except by special permission.

The Council have decided to forward these recommendations to the Headmasters of the Recognised Schools of Architecture for such action as they may consider necessary.

THE STAFFING OF RECOGNISED SCHOOLS

(27) That the Institute, in granting Recognition to Schools, should continue in all cases to adhere to its policy of safeguarding the right of teachers to practise.

(28) That every Recognised School should endeavour to consolidate the greater part of its appointments on a full-time basis.

(29) That the major responsibilities of administration, studio instruction and lecturing in fundamental subjects should be undertaken by members of a School staff holding full-time appointments.

(30) That the Institute should not in future grant Recognition to any School whose Head holds only a part-time appointment.

(31) That in all the Recognised Schools (*a*) there should be a larger number both of professorships and of full-time studio-instructorship; (*b*) security of tenure should more generally be assured for senior appointments.

(32) That consideration should be given to the training of teachers of architecture in the theory and practice of teaching, if and when the necessary facilities for such training are available.

(33) That the Institute should continue to make it clear to the authorities concerned that in general the salaries at present paid to teachers of architecture are no longer adequate to attract to the service of architectural education a sufficient number of candidates of the requisite quality.

The Council have approved recommendations (27), (28), (29), (31), (32) and (33) but they have decided not to accept recommendation (30). They wish to emphasise that the R.I.B.A. policy, whilst encouraging Headmasters and their staffs to practise privately, insists that their first allegiance is to their Schools.

TEXT BOOKS

(34) That the Institute should give such assistance as it can in remedying the serious deficiencies in the supply of professional text and reference books.

The Council have this recommendation still under consideration.

GRANTS, SCHOLARSHIPS, STUDENTSHIPS AND FELLOWSHIPS

(35) (i) That the resources at present available under this heading should be greatly increased.

(ii) That the Recognised Schools should decline offers of Scholarships and other awards which are subject to conditions designed to serve the purposes of commercial advertisement.

The Council have decided to take no action on this recommendation at this stage for the following reasons :—That the whole question of the R.I.B.A. Grants, Scholarships, Studentships and Fellowships has been under review in the past months. The Council feel that the need for Maintenance Scholarships provided from funds given by the profession is met by the Maintenance Scholarships of the Architects' Registration Council. Those R.I.B.A. Maintenance Scholarships which are provided out of Trust Funds are being continued and the Competitions for the traditional R.I.B.A. Prizes and Studentships have been started again.

ACCOMMODATION AND EQUIPMENT OF RECOGNISED SCHOOLS

(36) That every Fully Recognised School should aim at acquiring for its own exclusive use the following accommodation and equipment : (*a*) studios ; (*b*) lecture theatre with epidiascope and film projector ; (*c*) lecture rooms ; (*d*) space for the display of building materials, construction models and samples of equipment ; (*e*) laboratory or laboratories, with workshop ; (*f*) galleries for the display of drawings and of visiting exhibitions ; (*g*) library ; (*h*) slide room ; (*i*) accommodation for a post-graduate Department of Town and Country Planning ; (*j*) bureau for supply of drawing materials and equipment ; (*k*) general office and secretaries' rooms ; (*l*) staff rooms ; (*m*) staff and students' common rooms ; (*n*) ancillary accommodation, including fitted storage space.

ARCHITECTURAL ENVIRONMENT AND CHARACTER OF THE RECOGNISED SCHOOLS

(37) That, wherever possible, due consideration should be given to the setting of a School, as well as to its architectural character.

The Council have decided to forward these recommendations to the Headmasters of the Recognised Schools of Architecture for such action as they may consider necessary.

RECRUITMENT, DISTRIBUTION AND STATUS OF RECOGNISED SCHOOLS

Recruitment

(38) That the Board of Architectural Education should devote special attention to the question of the correlation of the recruitment of the Schools to the actual needs of the profession, so that there is neither a deficiency of qualified architects nor a surplus which the profession cannot economically absorb.

The Council have decided to take no further action at present on this recommendation as they are of opinion that no practical steps could be taken to give effect to it, for the following, amongst other, reasons :—(a) *The wisdom of attempting to carry out such a policy is open to grave doubt because of the economic factor that training is always five years in advance of the needs of the profession. It would not be possible to forecast with accuracy the needs of the profession five years ahead or to forecast the wastage in the Schools ;* (b) *no persons of the necessary aptitude could or should be debarred from entering the profession.*

Distribution

(39) That the claims of Brighton and of either Plymouth or Exeter to be the home of an Intermediate School should be considered at some future date.

The Council have taken note of this recommendation for necessary future action.

(40) That the Intermediate School at Bristol should be considered in due course for Final Recognition.

The Council have approved this recommendation for necessary future action.

(41) That a School, capable ultimately of qualifying for Final Recognition, should be established in Belfast and that every encouragement should be given by the Institute to the proposal that it should be founded in the Queen's University there.

The Council have approved this recommendation. The Council have been pleased to note the announcement recently made with regard to the satisfactory progress in the endowment of a School of Architecture at Queen's University, Belfast. The Prime Minister of the Government of Northern Ireland has stated that the Government will double a donation of £5,000 received by the Vice-Chancellor for the endowment of a full-time Chair of Architecture at Queen's University, and would give pound for pound up to a maximum of £5,000 to endow the Chair.

(42) That, as Scotland is already adequately served by Recognised Schools, no further applications for Recognition be granted.

The Council have given general approval to this recommendation.

(43) That the Institute should continue to adhere to its present well-considered policy regarding the distribution of Recognised Schools and should in no circumstances yield to pressure from any quarter to depart from it.

The Council have taken note of this recommendation.

(44) That the practice of exempting students attending certain Schools from presenting "Testimonies of Study" should be carefully reviewed in the light of recent developments in the expansionist programme of the Schools concerned ; and that in future this concession should be restricted to those Schools which it is intended should ultimately qualify for either Intermediate or Final Recognition.

The Council have approved this recommendation in principle.

(45) That the Institute's policy of granting Recognition only to Regional Schools on the conditions hitherto observed should be upheld in the London and Home Counties area as elsewhere in the country.

(46) That, if an additional Fully Recognised School were required to serve the Greater London area south of the Thames, a site within the L.C.C. boundaries should be chosen in preference to any centre in the Home Counties and the School be attached to an established institution with a long tradition of higher educational service.

The Council have these recommendations still under consideration.

Status

(47) That those Fully Recognised Schools outside London which do not possess academic status should endeavour to acquire it by whatever process may be most suitable in the circumstances in each case, the London Schools being excepted in view of their special position as metropolitan institutions.

The Council gave careful consideration to the report of the Board of Architectural Education that they are unable to subscribe to this recommendation because in their opinion while the University Schools can offer certain advantages other types of Schools can also lay claim to specific advantages and have made and can make valuable individual contributions to architectural education. The Council, while not disagreeing with the principle underlying the report of the Board, decided to accept recommendation No. (47) *of the Special Committee on Architectural Education in the following amended form :—"That those Fully Recognised Schools outside London which do not possess academic status should endeavour to acquire it wherever it is suitable to do so. (The London Schools being excepted in view of the special position as metropolitan institutions.)"*

R.I.B.A. EXAMINATIONS

(48) That, in view of the importance of every aspect of housing, both collective and individual, a due proportion of domestic subjects should be set by the Examiners in the Intermediate and Final Examinations in Design.

(49) That candidates in the Intermediate Examination should be required to carry their study of the General History of Architecture up to the present day.

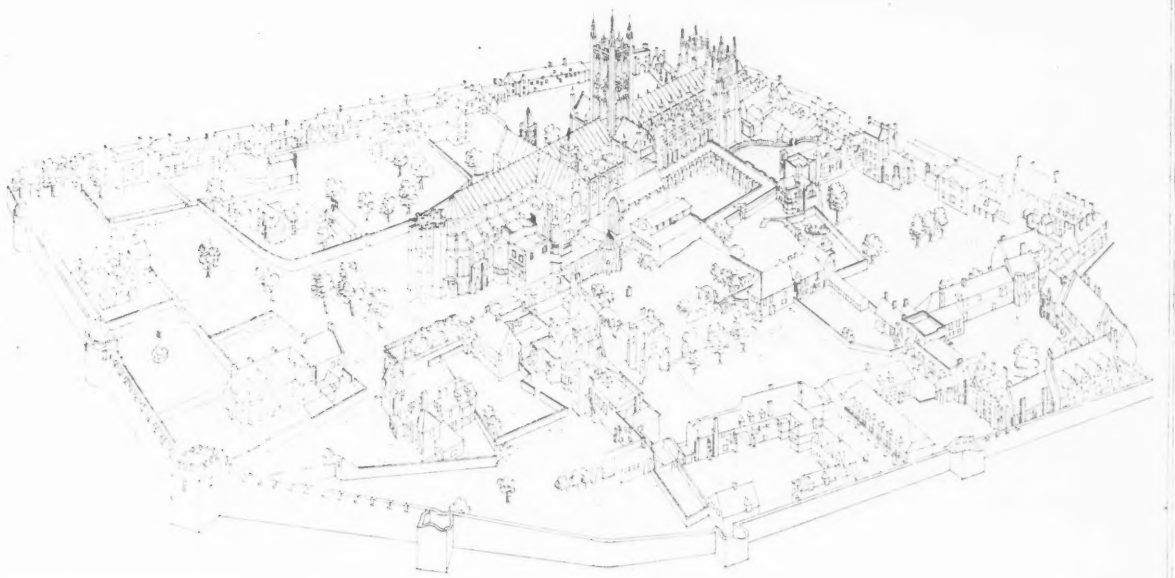
(50) (i) That the title of the paper in Subject A.1 should be amended to read "A Paper in the General History of Architectural Development."

(ii) That the paper should be divided into chronological sections and that candidates be required to answer at least one question in each section.

(51) That, further to encourage the study of the more recent history of architecture a fifth paper be included in Subject A.2 (Specialised Periods), this paper to be devoted to the Architectural History of the 19th and 20th Centuries in Great Britain, Europe and America.

The Council have these recommendations still under consideration.

THE NORTH EAST PROSPECT OF THE PRECINCTS



THE CATHEDRAL CHURCH OF CHRIST CANTERBURY

CANTERBURY CATHEDRAL APPEAL

The Dean and Chapter of Canterbury Cathedral have issued an appeal for £300,000 to make good the damage incurred by the Cathedral and its precincts as a result of six years of deferred repairs and to allow certain additional buildings to be provided in the precincts. The appeal also covers the establishment of a Maintenance Fund. As architects are well aware, all large groups of buildings of this type require the services of a permanent staff for maintenance, particularly mediæval vaulted buildings where continuous watching of the behaviour of the structure is necessary. Canterbury Cathedral has always required a large staff of skilled and unskilled craftsmen for this work. Throughout the war only a few of them, too old to be called up, have been at work, consequently much necessary repair work long overdue has had to be left undone ; the effects of such neglect tend to be cumulative. Therefore, quite apart from war damage, there is an enormous amount of repair work to be done at a time when wages and costs have greatly increased and when the resources of the Cathedral have gravely decreased. The Dean and Chapter confidently appeal for support to the Mother Church of this country and of the Anglican Communion throughout the world.

The printed appeal contains a report by Mr. H. Anderson [*F.*], F.S.A., President of the South-Eastern Society of Architects, describing the work of reparation. The late Mr. W. D. Caroe [*F.*], architect to the Ecclesiastical Commissioners, reported in 1924 on works which should be undertaken without undue delay and on those which were not pressing in 1924 but which would be required in the course of a few years. Of the first of these, six main items had not been executed by the time war broke out. These works included repairs to the remains of the monastic buildings, the exterior of the Treasury, to window ironwork generally, repair of decaying stonework of the Cathedral fabric, replacing of certain roofs and repair and preservation of the Great Cloisters. The works under the second head comprise further repair of decaying stonework, replacing of zinc roofs with lead and the recasting and re-laying of the lead to the roof of Bell Harry Tower. Mr. Anderson now reports that six major additional works have become necessary, these include repairs to the roofs of the Corona and South-West Transept, lead re-laying and recasting and renewal of certain timbers ; renewal of decayed timbers and re-laying of the roof of the North Choir Aisle ; consolidating of fissures in various parts of the fabric ; repairs to the City Wall and bastions. He points out that surface decay of various considerable areas of the stone is proceeding apace ; much of the original architectural detail is fast disappearing and will soon be irretrievably lost ; erosion of some parts—notably the lower stages of the buttresses of the South Nave Aisle—has reached the stage when it must be dealt with if the stability of the structure is to remain unimpaired ; stones have recently fallen from the South-West Porch and there is a distinct danger of falls occurring from other parts of the building. Mr. Anderson adds that these works are essential if the fabric is to be maintained in a form which its great historical and architectural importance warrants and demands. The remains of the monastic structures are not so intrinsically important as the Cathedral itself, but they are of great historic value and must be dealt with if they are to be saved from falling into a state of complete decay.

All these works are additional to those on which the expenditure is recoverable from the War Damage Commission. In view of

the fact that 445 high explosive bombs fell upon the site and more than 10,000 incendiary bombs, it is almost miraculous that the Cathedral itself escaped with no more than a severe shaking and superficial damage. Fifteen large bombs fell within the precincts, almost all within fifty yards of the Cathedral. The Cathedral Library became a total loss, though happily almost all the books were rescued ; this must be rebuilt and furnished with the best modern equipment for the use of students. The great organ was being renovated in 1939 ; a considerable part of it had been removed to the factory of Messrs. Henry Willis & Sons in London where it was destroyed by enemy action in 1941. The heating system has become entirely useless ; a new apparatus must be installed. The ancient glass was removed in 1939 and is now being replaced ; the cost of this work is heavy and is not recoverable from the War Damage Commission. A completely new wiring system for the electric lighting is imperative, the existing one having been condemned as unsafe.

Of the buildings in the precincts several were completely destroyed and others seriously damaged. Although substantial assistance will be forthcoming from the War Damage Commission for this it will not meet the main cost of the restoration of the Cathedral properties. Thus, for example, the Dean and Chapter will recover the sum of £13,650 for the destroyed houses in Burgate, for which a value payment will be made, but the cost of rebuilding these will be £80,000.

For various reasons the revenue of the Cathedral has been seriously depleted. The loss of rents from destroyed buildings and shops amounts to over £2,000 per annum. The operation of the Tithe Commutation Act of 1936 reduces the annual income of the Cathedral by £2,360. There was a serious diminution in visitors' offerings during the five years when Canterbury was a prohibited area.

All architects will be interested in the work of preserving this ancient and beautiful example of mediæval architecture and in its improvement to meet the spiritual needs of the present day. The Chapter is asking for a ready and generous response. All donations of whatever size—every kind of help—will be gratefully received and gratefully acknowledged. Some may desire to enter into a covenant to subscribe a fixed sum for seven years which permits a subscriber to give not only the sum named but also the Income Tax otherwise payable on the amount. All cheques, covenants, postal or money orders should be made payable to " The Canterbury Cathedral Appeal Fund " and sent to The Treasurer, 21 The Precincts, Canterbury.

REVIEW OF PERIODICALS

1945-46—III *(continued)*

HOTELS, HOSTELS

PLAN (Zürich), *1945 November/December, pp. 129-55 :*
Hotel and spa planning and reconstruction. Detailed consideration based on proposals made by Swiss hoteliers for adaptation and improvement of buildings.

ENGINEERING NEWS-RECORD, *1946 January 11, pp. 112-6 :*
" Brazil's wonder hotel and casino," Petropolis. " Warm-weather " resort hotel including roof landing platform for helicopters ; ice-skating rink.

PROGRESSIVE ARCHITECTURE : PENCIL POINTS, *1946 February, pp. 46-62 :*
Dormitories for railroad men on Pennsylvania system, U.S.A., by L. C. Tichy. Remarkable special-purpose buildings. Cubicle sleeping cabins, recreation room, lockers, toilets, etc.

FARMS

PROGRESSIVE ARCHITECTURE : PENCIL POINTS, *1946 March, pp. 65-80 :*
Bryn Gweled. Co-operative homestead develpt., Pennsylvania. Comt munity settlement on 240 acres for between 40-70 families. Layou plans, individ. houses illusd.

COUNTRY AND SMALL HOUSES

BYGGEKUNST (Oslo), *1945 No. 5, pp. 85-102 :*
Small house planning for Finnmark and Nord-Trons—the most northern areas of Norway.

ARCHITECTURAL DESIGN AND CONSTRUCTION, *1946 April, pp. 99-103 :*
To-morrow's small house. Illusns. of modern house designs by leading U.S. progressive archts. in Ladies' Home Jnl. Exhibition.

PROGRESSIVE ARCHITECTURE : PENCIL POINTS, *1946 February, pp. 66-84 :*
" Development restricted to houses of contemporary design." Article on Little Switzerland estate, Knoxville, Tenn. 10 small middle-class houses, by A. and J. W. Clauss.

DOMESTIC DEPENDENCIES (in other buildings)

JNL., INSTITUTION OF HEATING AND VENTILATING ENGINEERS, *1946 Jan.-Feb., pp. 253-84 :*
Industrial canteens, by H. H. Grattidge : design with reference to heating, cooking, etc., services ; food storage ; details of all types of cooking and preparation equipt.

ARCHITECTURE ILLUSTRATED, *1946 February, pp. 16-21 :*
Canteen, Wallsend shipyard, by Sheppard and Shufflebotham.

ARCHITECTURAL FORUM, *1946 February, pp. 155-8 :*
A new look at the kitchen. Analysis of kitchen storage, cooking, etc., equipment.

ARCHITECT AND BUILDING NEWS, *1946 April 5, pp. 8-10 :*
Current Notes on Planning : " Kitchens." Analytical article, Housing VIII, by " E. & O.E."

ARCHITECTURE FRANÇAISE, *1946 January, pp. 40-3 :*
Kitchens in communal restaurants. Notes on equipment.

LA MAISON (Brussels), *1945 December, pp. 298- :*
" Furnishing a modern study." Analytical article by Emmanuel Marechel. Illusd.

LA MAISON (Brussels), *1945 December, pp. :*
" Hanging cupboards." Analytical article by Pierre le Gerrurier (illusd.).

ARCHITECTURE (General) ; EDUCATION

ARCHITECT AND ENGINEER (San Francisco), *1946 February, pp. 13, 28-30 :*
The R.I.B.A. General article on work and hist. by C. D. Spragg.

JNL., R.I.B.A., *1946 February, pp. 129-30 :*
The organisation and work of the R.I.B.A. General descriptive article by A. L. Roberts.

ARKITEKT (Istanbul), *1945 No. 11-12, pp. 239-62 :*
" The academy of fine arts ; the cradle of Turkey's architecture." Illusd. article on archl. education in Turkey.

THEORY

ARCHITECTURE FRANÇAISE, *1946 January, pp. 19-22 :*
Musical rhythm in architecture by G. Jouven. Mathematical analysis of proportion.

ARCHITECT AND BUILDING NEWS, *1946 March 8, pp. 145-52, and subsequent Nos. :*
" How architecture is made : Monumental buildings." 4 lectures by H. S. Goodhart-Rendel at Liverpool University. The architect's qualities and obligations. Examples largely from town halls and churches.

JNL., AMERICAN INSTITUTE OF ARCHITECTS, *1946 February, pp. 59-64 :*
Colour and colour harmony. Paper to Rochester Soc. Archts., by C. T. Tucker. Physical characteristics, measurement of colour factors, scientific analysis of harmony.

JNL., R.I.B.A., *1946 May ;*
ARCHITECTS' JOURNAL, *April 25, pp. 331-2 ;*
BUILDER, *April 5, pp. 337-8 ;*
ILLUSTRATED CARPENTER AND BUILDER, *April 12, p. 402 :*
Colour in buildings. Paper by W. Allen of B.R.S. to R.I.B.A. Archl. Science Board. Light environment, texture and richness, utilisation of colour.

PRESERVATION

JNL., TOWN PLANNING INSTITUTE, *1946 Jan.-Feb., pp. 58-60 :*
The designation and preservation of buildings of special architectural or historical interest. Abstract of paper by A. W. Ward, Boro' Engr., Shrewsbury.

ANCIENT INDIA (Bulletin of the Archæological Survey of India, Delhi), *1946 January, pp. 4-7 :*
Repairs to the Taj Mahal, by M. S. Vats, Superintendent of Northern Circle, Archl. Survey. Illusd.

HISTORY

L'HOMME ET L'ARCHITECTURE, *1945 Nov.-Dec., pp. 2-8 :*
Architecture and tradition, by A. Varagnac, Conservateur, National Museums. Folk-art, costume, primitive carving, etc. having fundamental relationships to architectural form.

COUNTRY LIFE, *1946 February 22, pp. 348-51 :*
Burwash, Sussex. Illusd. article by Ch. Hussey on village largely "modernised" *c.* 1700.

ANCIENT INDIA (Bulletin of the Archæological Survey of India, Delhi), *1946 January, pp. 60-76 :*
Adilabad. A part of the 4th Delhi. Article by Hilary Waddington. Key plan of the Delhi towns.

ARCHITECTURAL REVIEW, *1946 March, pp. 84-5 :*
"The functionalist sharawag, 1848." Article on early railway building in S. Devon, illusd. by lithographs by W. Dawson.

ARCHITECTURAL FORUM, *1946 February, pp. 104-9, 124, 126 :*
19th-century train sheds. Analysis by C. L. V. Meeks of early rail station design in England and U.S., with particular reference to wide-span roofs. Well illusd.

COUNTRY LIFE, *1946 February 22, pp. 346-7 :*
London almshouses. Illusd. article by Jane Ellis.

THEATRE NOTEBOOK, *1945 October (Vol. 1, No. 1); 1946 Jan. (No. 2) :*
"On listing theatres." Preliminary annotated list of old theatres in London and provinces.

ARCHITECTURAL REVIEW, *1946 April, pp. 99-116 :*
Quaker meeting houses, 1670-1850, by Hubert Lidbetter. Illusd. views and plans.

BUILDER, *1946 March 22, pp. 280-1 :*
London's lost churches. Article by W. W. Begley on, mostly, 19th-cent. churches destroyed by blitz or to be pulled down on amalgamation of parishes.

JNL., R.I.B.A., *1946 January, pp. 85-7 :*
The structure of Salisbury Cathedral tower and spire. Paper by W. A. Forsyth, F.S.A. Current problems of preservation and safety.

ARCHITECTURAL REVIEW, *1946 April, pp. 121-4 :*
The tomb of Edward II, Gloucester Cathedral, *c.* 1327. Analytical and historical note by J. M. Hastings, with newly taken detail photographs.

ARCHITECTURAL REVIEW, *1946 February, pp. 59-60 :*
Grave boards. Note by G. G. Pace on wooden bed-boards in South England.

JNL., ROYAL SOCIETY OF ANTIQUARIES OF IRELAND, *1945 (Vol. LXXV, pt. iv), pp. 204-12 :*
Some primitive structures used as dwellings. Paper by Caoimhghin Ua Danachair on primitive wood and stone huts in Eire.

COUNTRY LIFE, *1946 February 8, pp. 250-2 :*
The Regent's Park terraces : preservation or redevelopment. Illusd. article.

COUNTRY LIFE, *1946 January 11, pp. 72-5 :*
Ludlow Castle.

COUNTRY LIFE, *1945 March 8, pp. 440-3 :*
Osterley Park, Middlesex. Elizabethan mansion remodelled by Robert Adam. Described by A. Oswald.

WOOD, *1946 February, p. 57 :*
Three-decker pulpits. Examples at Minstead, Hants, and Branscombe, E. Devon, illusd.

COUNTRY LIFE, *1946 February 22, pp. 342-5 :*
The Rex Whistler Room at Plas Newydd (house partially by J. Wyatt). Whistler's "most considerable" wall painting described by Ch. Hussey.

COUNTRY LIFE, *1946 April 12, pp. 668-9 :*
Window curtains of the 18th century. Illusd. article by M. Jourdain.

ARCHITECTURAL REVIEW, *1946 February, pp. 39-42 :*
Jerash, Transjordania : the Roman city and remains described by Robin Fedden. Illusd.

ARCHITECTURAL REVIEW, *1946 March, pp. 87-90 :*
Crusader country, Syria. Article on crusader castles, by Robin Fedden.

COUNTRY LIFE, *1946 March 8, pp. 446-7 :*
Early 19th century architecture in Penang. Article by D. Ffolkes. Illusd.

COUNTRY LIFE, *1946 March 15, p. 499 :*
John and Benjamin Green. Early 19th-cent. Gothic revival architects, Newcastle. Letter.

CUADERNOS DE ARQUITECTURA (Barcelona), *1945 December, pp. 3-15 :*
Concerning Viollet-le-Duc. Critical review of Viollet-le-Duc's historical and architectural work and theories, by P. D. Roura.

ARKHITEKTURA S.S.S.R. (Moscow), *1945 No. 9, pp. 16-25 :*
I. E. Starov (b. 1744), architect of the Tavrisheskoi Palace, Moscow. Well illusd. biog. article.

L'ARCHITECTURE D'AUJOURD'HUI (Boulogne, Seine), *1945 Sept.-Oct. : France d'outre-mer.* Special no., important for illusn. and description of French overseas bdg. in tropical and colonial territories. Includes articles and illusns. The European's colonial house in tropical zones; "brises soleil"—sun screening windows ; "Rhorfas" type shell parabolic roofs. Building types illusd. include : Hospitals and sanatoria, airports, schools, markets, police stations. Articles on planning and bdgs. in all chief French colonies. Table of French acts, regulations, etc., affecting colonial bdg. Article by le Corbusier, "The application of the Athens Charter" (of C.I.A.M.) to Algiers and Nemours.

ARKHITEKTURA S.S.S.R. (Moscow), *1945 No. 9, pp. 26-31 :*
Problems of technique in contemporary architecture, by Academician Ginsburg ; Russian national architecture and the question of a Russian style, by M. Ilin. (Ginsburg art. cont. in No. 10.)

LA MAISON (Brussels), *1946 February, pp. 35-45 :*
Modern Swiss Architecture. Analytical article by S. Zuillisson-Hoa (illusd.).

ARCHITECTURE FRANÇAISE, *1946 January, pp. 23-39 :*
Return to America, by Marcel Lods. The Evolution of American architecture, by André Remondet. Impressions of contemporary U.S. work, illustrating Whitestone Bridge, Rockefeller Centre, Iwassie dam, T.V.A., Johnson Wax Co. office. Also article on U.S. barracks.

PENCIL POINTS, *1946 January, pp. 42-81 :*
"Pearl Harbour to Nagasaki : a review of architectural progress," by T. H. Creighton. Æsthetic (pointing to increased confidence in modern design), planning for fitness, use of modern materials, special building types, industry, schools, hospitals, churches, houses, planning, etc. An optimistic and critical review based on articles and illusns. in RECORD FORUM and P.P. Well illusd.

ARCHITECTURAL FORUM, *1946 March, pp. 107-15 :*
"Portfolio of work by Bertrand Goldberg." Descriptive article on various houses, office, service station, etc. (illusd.).

RIVISTA DE ARQUITECTURA (Buenos Aires), *1945 November, pp. 419, 421-55 :*
Neutra. Articles on his work and speech by N. at presentation by Architects of Argentine. Illusns. and descriptions of private houses and schools mostly in California ; also Puerto Rico. Portrait of N.

ARCHITECTS' JOURNAL, *1946 January 31, pp. 100-1, 105-13 :*
Some new architecture in Brazil : some trends discussed and examples described. Incs. Rio Grande do Sul Railway offices by Reidy and Moreira, Pampulha Church, Bilo Horizonte by O. Niemeyer, Parque Hotel, Petropolis by Theodulo. Illusd.

DRAWING

ARCHITECTURAL ASSOCIATION JOURNAL, *1946 February, pp. 50-2 :*
Perspective drawing without vanishing points : a new technique, described by C. A. Claremont. Illusd.

ARCHITECTURAL VOCATION ; PROFESSIONAL PRACTICE

BUILDER, *1946 March 15, pp. 254-5 :*
Architects and copyright. Leader on general problems and code of conduct.

A.A. JNL., *1946 Mar., pp. 53-7 :*
The development of work in an official architects' office. Papers at A.A. by W. H. Hamlyn and J. L. Martin of L.M.S.

TECHNIQUES ET ARCHITECTURE (Paris), *1946 No. 3-4, pp. 97-9 :*
The architect and the engineer. General study of relative functions of two professions, by A. Balency-Béarn.

JNL., AMERICAN INSTITUTE OF ARCHITECTS, *1946 April, pp. 175-8 :*
The engineers' part in modern building, by M. X. Wilberding of Am. Soc. Consultg. Engrs.

BUILDING STANDARDS (Los Angeles), *1945 June, pp. 6-12 and subsequent nos. :*
Revision to U.S. Uniform Building Code. Statement of proposals.

ARCHITECTS' JOURNAL, *1946 April 25, p. 331 :*
Architect's responsibility for provisional estimates. Note on questions and answers.

(To be concluded)

PRACTICE NOTES

EDITED BY CHARLES WOODWARD [*A.*]

IN PARLIAMENT

Crown Lands. Advisory Committee

Asked the names of the members of the Crown Lands Advisory Committee and when the last meeting of this committee was held, the Lord President of the Council replied :—The Crown Lands Advisory Committee, originally appointed in 1933 for a term of four years, was in 1937 re-appointed for a further four years. When this further term expired in 1941, the then Prime Minister decided, with the concurrence of Lord Gorell, the chairman of the Committee, that it was unnecessary to re-appoint the Committee, bearing in mind that the Committee's duties were likely to be adequately covered in future by new central planning powers and that the Royal Fine Art Commission was available for consultation on æsthetic questions. The Committee held its last meeting in 1939. (30 July 1946.)

Footpaths

Asked how many footpaths closed during the war have yet to be re-opened, and by what date does he expect all the closed footpaths to be re-opened, the Minister of Town and Country Planning replied :—I regret that the information asked for in the first part of the question is not available. Many footpaths have already been released, but final decisions will in many cases have to await the consideration of the Services post-war land requirements which a committee under the chairmanship of my Ministry is now considering. It will, however, not be possible for any footpaths to be kept closed after 26 February 1948 unless an Order under Part III of the Requisitioned Land and War Works Act, 1945, is made by the Minister of War Transport. (30 July 1946.)

Architects and Works Engineers

Asked how far the responsibility for finance and supervision for structures erected under the auspices of his Department is vested in the architect ; what are the functions of regional engineers ; how many persons are so employed and at what salaries, the Minister of Works replied : The architect is responsible for the erection of the building within the approved estimate of cost and to the agreed plans and specification. The function of the regional works engineer is to assist the architect by supervising the erection of the building. There are 11 regional works engineers whose salaries vary from £665 to £1,035 per annum. (30 July 1946.)

Housing. Road Costs

Asked whether he will take steps to ensure that the expression "cost of roads" is further elucidated, in conformity with Section 6 of the Private Street Works Act, 1892, when used in connection with the maximum selling price of a house on a licence granted by or on behalf of his Department, the Parliamentary Secretary to the Ministry of Health replied : It is explained in the notes to the form of application for licence that the maximum selling price is the all-in price of the freehold, including cost of roads, sewers and other services, and my right hon. Friend has not received any representations from the local authorities or private builders that there is any doubt about what is meant by the expression "cost of roads." (30 July 1946.)

MINISTRY OF HEALTH CIRCULARS

158/46. 31.7.46. This Circular addressed to all local authorities having hospitals in the Emergency Hospital Scheme informs them that the Minister is prepared to admit for reimbursement the reasonable and necessary cost of removal of structural precautions originally approved by him and admitted for Exchequer grant. Applications should be included in Form A.G.1002.

161/46. 31.7.46. This Circular addressed to all local authorities in England refers to the Control of Civil Building and the limit of £10 which may be spent without a licence during the six months 1 August 1946 to 31 January 1947. In computing the cost of work in the case of premises being constructed, reconstructed or altered for occupation wholly as a private dwelling the services of any person who does not receive any payment or other valuable consideration for these services, and the cost of any materials exclusively used by that person, are disregarded.

Guide on Rent Control

This Guide has been compiled by the Ministry of Health and is on sale at H.M. Stationery Office, price 3d., under the title Rent Control in England and Wales (C133). This is a most useful Memorandum and sets out the main provisions of the law relating to rent control n the Rent and Mortgage Interest Restrictions Acts, 1920-39, Defence Regulation 68 C.B., the Building Materials and Housing Act 1945 and the Furnished Houses (Rent Control) Act 1946. The Guide deals with houses to which the Acts do, or do not, apply, the meaning of Standard Rent, recovery of sums wrongly paid and Security of Tenure.

Supplement to 76/46. August 1946. This supplement to Circular 76/46 referring to solid fuel appliances and that not more than one solid fuel appliance should be installed in each house indicates that :—

1. The restriction applies only to cast iron cookers and boilers and other appliances having cast iron components. There is, therefore, no objection to the installation of additional fireplaces of some other construction.

2. The restriction refers only to space heating appliances, so that an independent boiler, for example, and an open fire with a cast iron grate may be used in the same house. As previously indicated, however, the use of independent boilers should be avoided, wherever possible, on grounds of fuel economy and hot water obtained from back boilers combined with other appliances.

Soil Pipes

It is understood that manufacturers have stocks in hand of 10 ft. lengths of 3¼ in. (internal) unsocketed bitumen-dipped asbestos cement pipes. It has been suggested that this material might be used for ventilating pipes either for single storey houses, or for the upper length of ventilating pipe above first floor level in two-storey houses where the soil pipe proper is not more than 3½ in. diameter. Local authorities are asked to consider this suggestion, and supplies of 3¼ in. asbestos cement pipe can be ordered through any builder's merchant.

164/46. 15.8.46. This Circular refers to the amendment of Form B.M.5 and states that it has been decided to add the following to the list of items covered by the Priority Distribution Scheme :—

All Regions. Plate Glass. Unit S.F.

Regions other than London. Plasterboard. Unit S.Y.

These items should be added to Form B.M.5 when priority certificates are applied for.

(*Note.*—This Circular should be read in conjunction with Ministry of Works Circular P.1.217 (No. 11) 31.7.46., noted under that heading in these notes.)

NOTES ON BUILDING MATERIALS AND COMPONENTS. (SUPPLEMENT TO MINISTRY OF HEALTH CIRCULAR 76/46). ELECTRICAL COMPONENTS

76/46. August 1946. The overall production of electrical wiring accessories of all kinds, with the one exception of conduit boxes, is now amply sufficient to meet all new housing needs. It is known, however, that difficulties have occurred recently in obtaining some of these materials for new houses. The position has now been discussed with representatives of the electrical manufacturers and electrical factors, who have been asked to ensure that goods are supplied strictly in accordance with the W.B.A. priority scheme in future. It is hoped that as a result of the action taken increased supplies of electrical accessories will be available for new housing work.

In order to supplement the output of cast iron conduit boxes, arrangements are being made for certain firms to produce zinc diecast conduit boxes, and supplies of these may be expected on the market in the near future.

NOTES ON BUILDING MATERIALS AND COMPONENTS. (SUPPLEMENT TO MINISTRY OF HEALTH CIRCULAR 76/46). PAINT

76/46. August 1946. Owing to the present critical shortage of linseed oil, supplies of paint for all purposes will be severely restricted for some time to come. Imports of linseed oil to this country have been severely reduced, largely owing to the suspension of supplies from India, and in view of the present world shortage of oils and fats it has been necessary for the Ministry of Food to allocate more linseed oil for certain purposes to enable other oils to be diverted to food production.

An amended scheme for the release of linseed oil to the paint industry has accordingly been put into operation as from 1 August 1946, by the Board of Trade in consultation with the other Departments concerned. Under this scheme the available supply of linseed oil will be used in specified proportions for the three broad classes of paints, i.e., building, industrial and transport paints, and the paint manufacturers have been asked to adhere to a regulated system of distribution according to agreed priorities.

So far as building paint is concerned, the bulk of the supplies available will be distributed as at present in accordance with the W.B.A. priority

scheme and paint manufacturers have been asked to adhere strictly to this system of priorities in future.

It is hoped that under these arrangements adequate supplies of building paint will be available for new houses and for urgent repair and maintenance works of the kinds specified in Circular 138/46, but strict economy in the use of paint will still be necessary. A further memorandum detailing how economies in the use of paints, etc., can best be achieved is in preparation and will be issued at an early date.

In addition to the paint released against W.B.A. certificates, a smaller quantity of building paint is being specially allocated for building maintenance. This paint will be made up in small quantities and sold for general use through the retail trade.

NOTES ON BUILDING MATERIALS AND COMPONENTS. (SUPPLEMENT TO MINISTRY OF HEALTH CIRCULAR NO. 76/46). BRICKS

76/46. August 1946. 1. In the previous supplement, "Bricks No. 1," attention was drawn to the need for the strictest economy in the use of bricks for housing purposes. During the last few months there has been a considerable increase in brick production, and it is hoped that output will continue to expand so as to keep pace with the increase in the number of houses under construction. Economies in the use of bricks cannot yet be relaxed, however, and local authorities are asked to collaborate in ensuring that the best use is made of the bricks available in order to produce the greatest number of completed houses.

2. Bricks as building materials are replaceable in whole or part by various and equally efficient substitutes, mainly precast or in situ concrete. The following table gives an approximate measure of the savings which can be effected by substitution for various classes of work per standard three-bedroom house :—

	Number of bricks saved, varying according to size of bricks
1. Replace bricks by concrete blocks or bricks throughout	19,000-21,000
2. Where roughcasting the exterior is proposed, build the external walls in "rat-trap" bond brickwork	2,500-2,750
3. Build party walls in "rat-trap" bond brickwork	600- 700
4. Mass concrete in lieu of bricks to ground level	1,100- 1,200
5. Concrete blocks or bricks to inner skin of 11 in. hollow external brick walling	5,000- 5,500
6. Concrete blocks or bricks to party walls	2,400- 2,650
7. Concrete blocks or bricks for ground floor partitions	550- 660
8. Build chimney flues, breasts and stacks in concrete forms, or blocks or bricks	3,000- 3,250
9. Concrete blocks or bricks to sleeper walls where ground floors are of timber joists	400- 500

Bricks should on no account be used at present for garden walling.

3. Rather than impose rigid limits on the number of bricks to be used, the Minister asks local authorities until further notice to make the fullest use they can of the alternatives described above in new contracts, and by way of variation orders in existing contracts, in so far as the necessary materials are available locally. The alternatives numbered 4 and 9 should, however, be adopted in all cases.

4. Local authorities should also ensure, by the insertion of conditions in licences granted by them, that the two alternatives specified above are adopted in the case of houses to be erected by private builders, and should use their best endeavours to see that private builders adopt such further economies in the use of bricks as they consider appropriate.

5. In connection with their own housing schemes, local authorities should see that orders for bricks are placed at the earliest possible date and that requirements are properly phased over the period of the work.

MINISTRY OF WORKS CIRCULARS

P.I.217 (No. 11). 31.7.46. This Circular states that the procedure for the distribution of Plate Glass, Plasterboard, Asbestos Cement Products and Slates has been simplified.

PLATE GLASS. "Permits to purchase" will no longer be required as from 1 August but W.B.A. priority symbols will still be necessary.

PLASTERBOARD. ASBESTOS CEMENT PRODUCTS AND SLATES. "Permits to purchase" will be required *only* in the London Civil Defence Region as from 1 August. Outside this Region W.B.A. priority symbols will still be necessary.

The London Civil Defence Region covers the following area :—

The administrative counties of London and Middlesex. So much of Essex as consists of the boroughs of Barking, Chingford, Dagenham, East Ham, Ilford, Leyton, Walthamstow, Wanstead and Woodford, and West Ham; and the urban districts of Chigwell and Waltham Holy Cross.

So much of Hertfordshire as consists of the urban districts of Barnet, Bushey, Cheshunt, and East Barnet; and the rural district of Barnet.

So much of Kent as consists of the boroughs of Beckenham, Bexley, Bromley and Erith; and the urban districts of Chislehurst and Sidcup, Crayford, Orpington and Penge.

So much of Surrey as consists of the boroughs of Barnes, Beddington and Wallington, Croydon, Epsom and Ewell, Kingston-upon-Thames, Malden and Coombe, Mitcham, Richmond, Surbiton, Sutton and Cheam and Wimbledon; and the urban districts of Banstead, Carshalton, Coulsdon and Purley, Esher, and Merton and Morden.

P.I.217 (No. 12). 14.8.46. The Committee appointed by the Minister of Works to enquire into the distribution of building materials and components has held its first meeting. The Committee has invited written evidence from representative bodies of builders' merchants, building materials producers and users of building materials and components, and from a number of separate authorities, firms and individuals. The Committee would also be glad to receive written statements from any other organisation or individual concerned with the production, distribution or use of building materials and components, or from any other interested person who feels that he has something of value to offer which would assist the Committee in its enquiry. The terms of reference of the Committee are :—

> To examine the organisation and methods of distribution of building materials and components with particular reference to cost and efficiency, and to make recommendations.

Communications should be addressed to Mr. W. P. D. Skillington, Ministry of Works, Lambeth Bridge House, S.E.1, the Secretary of the Committee.

MINISTRY OF TOWN AND COUNTRY PLANNING

The Minister of Town and Country Planning has issued directions under Section 6 (2) of the Town and Country Planning (Interim Development) Act 1943, as amended by Section 31 (2) of the Town and Country Planning Act 1944 to districts which include any areas of high scenic value, requiring that where the Interim Development Authority gives permission for any development contrary to the advice of the Joint Planning Committee, or the County Council (as the case may be) to whom planning powers have been relinquished, he should be notified of the decision.

The direction includes potential National Parks and coastal regions of outstanding beauty, and the Minister points out that such areas are of more than local importance and in fact form a national asset which it is important to maintain. (30 July 1946.)

MINISTRY OF EDUCATION

Administrative Memorandum No. 174 (12 August 1946) refers to Huts for Raising the School Age and services and fixtures in Practical Rooms and Blackboards in Classrooms. The Memorandum is addressed to Local Education Authorities.

Standard layout plans have been prepared for the following types of practical instruction rooms: Woodwork, Metalwork, Woodwork and Subsidiary Metalwork, Science and Domestic Science. These rooms are shown on Sheets Nos. 18 and 19. The door positions have now been standardised for all types of practical instruction rooms as shown on Sheets Nos. 18 and 19 and revised Sheet No. 1.

The Ministry of Works are prepared, if requested by the Local Education Authority, to provide (*a*) the fixtures shown *M.O.W. Supply* on the drawings, together with the services and (*b*) the services only in connection with the fixtures shown *Not M.O.W. Supply* on the drawings. Form S.B.10 is attached to the Memorandum for use in applying for the services and fixtures.

Quantity Surveyors' Fees

The Royal Institution of Chartered Surveyors have issued a revised Scale of Charges for preparing Bills of Quantities, etc. The Scale includes the principles governing the interpretation of the Scale.

There are alterations in the percentages for checking prime cost in "Cost plus Profit" Contracts, the new percentages including the making up of final accounts of works executed.

LAW CASE

WAR DAMAGE ACT 1943. Claim to defer site value owing to the restriction on building.

The following case is reproduced by the courtesy of the Editor of *The Estates Gazette* and the report appeared in the issue of that journal for 3 August 1946 :—

> "The first appeal against a determination of the War Damage Commission to come before a tribunal appointed under the provisions of the War Damage (Valuation Appeals) Act 1945 was heard in London on 26 and 29 July and has been disallowed.

Brought by Fenchurch Street Properties, Ltd., against a determination by the War Damage Commission that for the purposes of Section 10 of the 1943 Act the amount of the value payment to be made in respect of 14-16 Norwich Street, E.C.4, was £8,800, the appeal raised points of the greatest importance.

The members of the Tribunal were His Honour Judge Trevor Hunter, K.C. (chairman), Mr. H. M. Pratt, barrister-at-law, and Mr. J. H. Coles, F.S.I., formerly County Valuer for Kent.

Counsel for the appellants were Mr. G. O. Slade, K.C., and Mr. Harold B. Williams (instructed by Rooks, Wales & Co.), and the War Damage Commission was represented by Mr. Michael E. Rowe, K.C., and the Hon. H. L. Parker (instructed by Mr. C. J. Highton). Mr. Percy Lamb, barrister-at-law, watched the proceedings for an interested party.

Presenting the appellants' case, Mr. Slade said that they were asking the Tribunal to ascertain the values of the hereditament before and after the occurrence of the war damage.

In a statement of facts the parties had agreed both figures on the following basis : the Commission were content with a before-damage value of £12,500 if their contentions should be held correct, and the appellants were content with an after-damage value of £3,700 if their contentions failed. If, however, the appellants' contentions should succeed the Commission might want to reconsider the £12,500 by taking advantage of the appellants' contentions—on the footing of what was sauce for the goose was sauce for the gander. He would in no way demur to their doing so.

The after-damage value for which the appellants were contending was £2,275, being the agreed figure of £3,700 deferred for ten years at 5 per cent., and if they were able to establish that as being correct, the value payment to which they would be entitled was £10,225.

THE APPELLANTS' SUBMISSIONS

Mr. Slade summarised his submissions, which he went on to develop at considerable length, as follows :—

That for the purpose of computing a value payment under Section 10 (2) of the Act by reference to prices current at 31 March 1939 regard must be had :

(1) to the fact that a notional war was in existence at that date ; alternatively

(2) to the probability or possibility on that date that a war would eventuate ; and

(3) (which was cumulative) to the fact that the hereditament was subject to any existing restriction imposed upon it by or under any enactment in force on 31 March 1939, and, further, to any notional restriction imposed upon it by or under any enactment thereafter to be passed before 26 March 1941, being the date of the coming into force of the War Damage Act 1941.

(Submission (2) was subsequently withdrawn.)

In connection with submission (3), Mr. Slade went on to contend : (i) that the Defence (General) Regulations were an enactment ; (ii) that the restrictions they imposed were restrictions to which the hereditament was subject within the meaning of the Act of 1943 (para. I (1) (*c*) (iii) of the Second Schedule) ; (iii) that therefore it followed that among the matters to which regard must be had in ascertaining the amount the hereditament would have realised on such a sale as was specified in paragraph 2 of the Second Schedule was Regulation 56 (A), which imposed limitations upon building operations.

Evidence was given for the appellants by Capt. Montagu Evans, M.C., F.S.I., F.A.I., senior partner in Messrs. Montagu Evans & Son, 21 Brunswick Square, W.C.1.

For the War Damage Commission, Mr. Michael Rowe said that the propositions raised by his learned friend went right to the fundamentals. If Mr. Slade were right on either proposition it might very well be that nearly every valuation which had been made was in greater or less degree wrong. Not only the War Damage Act but also the Town and Country Planning Act 1944 was affected, because in the latter statute, too, there was the 1939 basis. In his submission the appeal was really an attack upon the 1939 basis as much as anything else.

Counsel made the following submissions :—

(1) that Defence Regulation 56 (A) was not a restriction to which the hereditament was subject at the relevant time ; in his submission that Regulation, in common with all the other Defence Regulations, was a restriction upon persons and not upon land ;

(2) that when the Act in Section 10 spoke of the amount which the property might have been expected to realise on a sale, in accordance with the Second Schedule, made on 31 March 1939 it meant what it said, i.e., that the social, economic and political factors which were to affect the sale were those prevailing at 31 March 1939 and at no other date ;

(3) if the foregoing proposition be correct, then the Defence Regulation and the restriction on persons thereby to be imposed would in fact have had no effect at all on the market.

He added that the inevitable result of accepting Mr. Slade's propositions would be the most astonishing illogicalities and inequalities in the assessment of compensation for war damage.

Mr. Cecil Lodge Philcox, F.S.I., District Valuer for the London Central District, gave evidence for the respondents.

The Tribunal has found : (*a*) that the value of the hereditament in the state in which it was before the occurrence of the war damage was £12,500 ; (*b*) that the value of the hereditament in the state in which it was after the occurrence of the war damage was £3,700. They order that the appellants pay the taxed costs of the War Damage Commission.

A fuller report of the hearing will appear in an early issue.

(*We understand that the appellants are likely to appeal against the decision of the Tribunal.*)"

War Damage Fees

The revised Code of Professional Fees payable by the War Damage Commission was published in the JOURNAL for February last.

The Commission will apply this Scale to all claims *received* by them after 8 February last.

National Insurance Act 1946

The National Insurance Scheme provides for a rise in the amount of Employers' contributions.

The increase in respect of Health and Pensions Insurance will take effect as from 30 September 1946 and will amount to 11d. per week per man.

This is the first instalment towards raising the level of Employers' contributions to that required for the full operation of the National Insurance Act 1946.

BOOK NOTES

Rebuilding our Communities, by Walter Gropius. A Lecture held in Chicago, 23 February 1945, under the joint auspices of the Institute of Design, the Chicago Association of Commerce and the Chicago Plan Commission. Published by Paul Theobald. Chicago. 1945. 8½ in. by 11 in. 61 pp. $1.75.

REVIEWED BY ROBERT TOWNSEND [*A.*]

Day by day we read of the progress or lack of progress of the housing programme depending upon the political complexion of the particular newspaper to which we subscribe. Month by month we study the Ministry of Health Statistical summary for the achievements in terms of numbers of houses erected and under construction, and numbers approved both public and private enterprise. From time to time there is a debate in the House of Commons which we all read in *Hansard*. The same discussion takes place, with, however, a few considerations added. Mention may be made of floor area—is 1,000 sq. ft. enough—or 900 or 800? These are the considerations that occupy the minds of our legislators or administrators—and our newshawks.

Do these numbers in the monthly statistical summary represent gracious, spacious dwellings, appropriately placed and spaced? Nobody knows and nobody cares—as long as the numbers are kept up, as long as the floor areas are within the statutory limits, as long as the bye-laws are not offended. Though, indeed, I must admit that statutory obligations are sometimes disregarded in the interests of numbers.

Our Government has thought it worth while to investigate the possibilities of prefabrication—again to turn out more, faster. Again the future is mortgaged to the present. Some of the proposals for permanent prefabricated houses may be well designed, but always they are based on the semi-detached house, designed as a unit. One pair may be satisfactory, three pairs may be acceptable, five hundred pairs, ranged in their twos will always be intolerable. The idea behind all our proposals for factory built houses make such a situation inevitable.

In his lecture, Walter Gropius reminds us that our determination should be " to let the human element become the dominant factor." Of course such a phrase may be interpreted in many different ways,

but it has become an almost universally accepted idea that every citizen should be able to take an active part in the life of the community in which he lives. Moreover, such a community should be varied in composition and activity, containing industrial, commercial, cultural, as well as residential segments. Unfortunately too often in the search for numbers these human essentials are postponed—till a more favourable opportunity. That is we do not really consider them of fundamental importance.

Walter Gropius points to three changes that are required before all human needs can be fulfilled. First, change in the ownership and use of land, secondly changes in the financing of dwellings, which he suggests might be "developed in a manner similar to the financing of automobiles, even including a second-hand market for dwellings produced by prefabrication." Third, simplification of building technique and organisation. An important step in this direction is prefabrication. But Gropius sees that "more and more the tendency will develop . . . to prefabricate the component parts of buildings, rather than whole houses." At present our studies of prefabrication have not got beyond the idea of the whole house; we must develop the idea on the lines suggested by Gropius or the future may well be more hideous than the past.

"The designer and builder will then have at their disposal, something like a box of bricks to play with, an infinite variety of interchangeable component parts for building, which could be assembled into individual dwellings of quite different appearance and size."

The book illustrates one such system, "The Packaged House System" developed by Walter Gropius and Konrad Wachsmann.

By some such methods, standardisation ceases to be "mere machine repetition of a design" and can become something worth while. Gropius quotes with approval Frank Lloyd Wright's remark, "Standardisation can be murder or beneficial factor, as the life in the thing standardised is kept by imagination or destroyed by the lack of it." The number theory of housing can admit of no imagination.

Finally in his lecture Gropius turns to the steps that could be taken to break the present stranglehold on cities. He suggests the "siphoning off" of these people who cannot be permanently employed in the city and re-settling them in neighbourhood units in the country. Stevenage might be such a unit, if the opportunity is seized. This procedure will allow the centres of our megalopolitan cities to be renewed and re-opened. "Freed of dead weight, the regained areas of the dying cities could then be returned to their proper functions as integral parts of an organic social structure for the whole region."

Finally he says, "May I suggest that the idea of creating organic communities be placed at the heart of our plans for war memorials? Instead of the usual icy symbols in stone or marble, each state should build—with the help of returning G.I.s—at least one model neighbourhood community to honour our war dead. Nothing could better express our desire for peace and the pursuit of happiness."

While there is nothing startlingly new in this book, the great authority of Walter Gropius should help in the general acceptance of his thesis. In England we have had little opportunity of following the work of the former Director of the Dessau Bauhaus in America, apart from a few photographs in American journals, and this volume will be welcome to all architects, and deserves, though this is unlikely unless reprinted in this country, a wide circulation.

Building Mechanics for Junior Technical Schools, by Trefor J. Reynolds, B.Sc., A.M.I.C.E. 8to. 230 pp. Hodder & Stoughton, Ltd., for Eng. Univ. Press. 6s. 6d.

REVIEWED BY FELIX J. SAMUELY

This book is based very much on "The Introduction to Structural Mechanics for Building and Architectural Students" which appeared in 1944, by the same author in collaboration with Lewis E. Kent, B.Sc.(Eng.), A.M.I.C.E., A.M.I.Struct.E. In fact it could be described as a shortened edition of this book, using the same illustrations and examples.

As the new book is issued for the use of junior technical schools the chapters requiring a certain degree of mathematical knowledge are omitted. What is left will enable the student to acquaint himself with sufficient mechanics to calculate simple beams and latticed girders, but not columns. First principles are explained very thoroughly and the only criticism seems to be that these explanations are, if anything, a little too painstaking and lengthy. As the book progresses to more difficult problems, such as centres of gravity, etc., the explanations, although still very thorough, are more concise. In every instance the photographs of testing apparatus, etc., help to make the text much clearer for the student.

A very useful chapter has been added at the end, dealing with work, horse-power and lifting appliances, and introducing a subject that is of enormous importance for building technicians, but one which has been much neglected in the past.

This book should be of great value to all junior students, in spite of the fact that the method of presentation sometimes makes the illustrations a little difficult to read. They would have been much clearer had all the notes been in ordinary type instead of script.

Prefabrication in Building, by Richard Sheppard. 4to. pp. 148. 163 illustrations. Architectural Press. 1946. Price 18s. 6d. net.

REVIEWED BY C. C. HANDISYDE [*A.*]

This book provides a useful collection of good illustrations, by photograph and diagram, of many of the most talked of systems of prefabrication. For this reason it will be useful to those who wish to familiarise themselves quickly with the general trends. For the interested layman it will be particularly suitable.

Although the greater part of the book consists of illustrated descriptions of fairly recent examples there are five chapters at the beginning in which the author discusses in a clear and non-partisan manner the more general aspects of the subject. One could wish that his remark that "A steady improvement in site planning has been apparent in recent years" was borne out in the latest efforts with the temporary bungalow schemes.

Two minor criticisms might be made. First, that illustrations are very scattered and reference to them when reading the text is difficult. Second, that a more critical survey of some of the detailed schemes would have been helpful although admittedly a difficult and controversial proposition.

Handbook of Perspective. by A. G. Warren, A.N.Z.I.A. 10s. Size 7½ in. by 10 in. 54 pages illustrated by line blocks.

REVIEWED BY JOHN M. HOLMES

During the present dearth, when so many well-established textbooks are queuing at their publishers for the necessary paper for reprinting, this book by a New Zealand author should be assured of ready sale. Here is a genuine and at least partly successful attempt to make the technique of linear perspective easily available and, under such circumstances, criticism may seem a somewhat ungracious duty.

Nevertheless it must be pointed out that the type is unnecessarily small, leaving much surplus space on at least half the pages, while some of the 24 or more diagrams lack precision and clarity because of the thickness of the constructional "dotted" lines. Such "dotted lines" are no doubt best left for "signing on" purposes for which they are at present in great demand on government forms. It is somewhat alarming to notice, in Diagram 18, "Reflections," that the Image appears to touch the reflecting surface while the Object stands some distance from it. Alice would have found a suitable word for this!

The wary student will find the book a useful though taciturn guide to progress in a world where such guides have in any case great scarcity value.

London Council of Social Service. Report for the year 1945-46. 4to. 22 pp. 1946. n.p.

This report summarises briefly the experiences of voluntary social service work during a transition year coming between a period of emergency services and one of long-term community planning for peace. During the war a large number of community associations came into existence with groups such as those connected with Civil Defence and Tenants' Rights. Contact was made with these and has since been maintained.

Citizen's Advice Bureaux, operated by the London Council of Social Service and which have dealt with a very large number of enquiries connected with resettlement, employment and training, are now officially linked with the local authorities. The London Council of Social Service have done much to smoothe this change-over. An extensive information service has been built up operating a scheme for sending out on a subscription basis digests of important social legislation and regulations.

Building Research on Damaged Buildings. Note No. 21. The Repair of Stonework Damaged by Fire. sm. 4to. pp. 5. 1946.

Note No. 22. Assessment and Repair of Damage done by enemy bombing to foundations and other underground structures. 1946. sm. 4to. pp. 16. (Issued by the Building Research Station).

Two further Notes on the Repair of Damaged Buildings series, covering the subjects of topical interest referred to in the titles, have been issued by the Building Research Station. Copies of these and all other notes in the series may be obtained free on application to the Director, Building Research Station, Garston, Herts. Envelopes should be marked "R.D.B."

OBITUARIES

Gerald Unsworth, M.B.E., M.C. [*F.*]

We regret to record the death of Gerald Unsworth, M.B.E., M.C. [*F.*], at the age of sixty-three. We are indebted to Mr. A. Christopher Goulder [*F.*] for the following particulars of Mr. Unsworth's career. He commenced his training under his father, the late W. F. Unsworth [*F.*] and entered into partnership with him in 1907, practising at Petersfield, Hants, being subsequently joined by the late H. Inigo Triggs [*F.*]. In 1920 the firm moved to London, with branch offices at Petersfield and Winchester and, on the death of his former partner, took into partnership A. Christopher Goulder [*F.*] and later Robert Bostock, M.A. [*L.*]. Mr. Unsworth became an Associate in 1920 and a Fellow in 1923 and was for many years a member of the Architectural Association and the Arts Club.

He specialised in domestic architecture over a wide field in the South of England. Among his early works were Ashford Chase, Durford Court and many large houses on the Durford Wood Estate, Petersfield, and Fulmer Chase, Bucks. Latterly he was interested in the erection of flats, of which a well-known example is Cottesmore Court, Kensington, and also the development of Council housing estates upon several of which he was engaged at the time of his death, in particular for Petersfield R.D.C. and Droxford R.D.C. in Hampshire.

In his military service in the first world war he attained the rank of Major, being awarded the M.C. In 1939 he rejoined and served on the staff of the 3rd Corps until Dunkirk, and subsequently acted as D.A.D. (Labour) on the staff of Northern Command. For the last-mentioned services he was awarded the M.B.E.

The firm of Unsworth & Bostock at 8 Cromwell Place, London, S.W.7, is being carried on by Mr. Robert Bostock, M.A [*L.*].

Mr. Unsworth's old friend, Mr. Austen Hall [*F.*], has sent us the following appreciation :—

" Gerald Unsworth was a man whose friendship was an experience greatly prized by those who had the privilege of enjoying it. And they were many—for he had the talent for keeping his friendships in repair ; he was never inaccessible, though naturally shy and retiring. Under the modest demeanour of this most lovable man was a heart of gold, and ability of no small order. His wide knowledge of affairs was always at the service of others.

When he lived in his charming house near Petersfield it was a meeting place for interesting people, as well as the hospitable roof for many in need of rest and refreshment in the country.

His professional work was always extremely sound, like Gerald himself. It had the architectural quality of being right, and it looked right. His clients were satisfied people who overwhelmed him with work, and this must have put a strain upon a constitution that was never robust. In spite of this life-long handicap he was an ardent soldier in two world wars, being awarded the M.C. and M.B.E. for his services. He really enjoyed military life, and military strategy, in which he was widely read, interested him enormously. He might have reached high rank in the Army had he enjoyed better health.

He leaves so many of us with grateful memories of one whose example is treasured for its strength and simplicity, and for the good companion and friend that he was."

Mr. Robert Bostock, M.A. [*L.*], Mr. Unsworth's surviving partner, has sent us the following appreciation :—

" To have known Gerald Unsworth as a friend and partner for twenty years is one of the really fine and unique experiences that it is our privilege to enjoy, all too rarely in life.

From the days when like many others he was faced with rebuilding his practice after serving with distinction in the first world war, through the ebb and flow of prosperity in the period up to 1939, to the final phase when rather than retire in comfort after a second distinguished period of military service, he chose to press on with the practice of architecture in spite of all the present changes and difficulties, Unsworth showed a fine judgment and well-balanced appreciation that is not often achieved. These qualities were not only brought to bear on the immediate problems of planning and design but also on the innumerable facets of a twentieth century architect's work. In particular they were shown in his general business and financial ability which few of us even hope to achieve.

Throughout his main interest lay in the country house of which he has left so many examples in the Southern Counties. The knowledge and skill that he developed in that field were a sound foundation for his other work among which Cottesmore Court, Kensington, shows his ability in flat design."

Henry Ingalton Sanders [*F.*]

We regret to record the death of Mr. Henry Ingalton Sanders. His friend, Mr. A. Leonard Roberts (Hon. Secretary, R.I.B.A.), has sent the following appreciation :—

" Ingalton Sanders [*F.*]—' Jack ' as he liked to be called by his closest friends—was a man of rare personal qualities, and his many friends, scattered as they are over a wide area, will regret to hear that he passed peacefully away in his sleep at his Southampton home, on Saturday, 20 July, after a brief illness of only two days. He was 77 years of age.

" It was typical of him that, when he was approached about taking the presidency of the Hampshire and Isle of Wight Architectural Association for the sessions 1931 to 1933, he should throw doubt upon his ability for the job, but in the end his retiring nature yielded to pressure and he became an excellent president and did much to strengthen the Association at a time when it was growing and needed the wise guidance which it received from this kind, sensitive, sympathetic and far-seeing man of wisdom. He had a subtle and keen sense of kind humour which made him a delightful speaker. He was also a good leader, for he knew how to persuade others to follow in the direction he wished them to go.

" It was the work of the Association, which he carried through so unselfishly, which brought him into closer touch with its parent Institute. He was an ordinary member of the R.I.B.A. Council 1931 to 1933 and a member of the Allied Societies' Conference 1931 to 1946. The Conference soon discovered his sterling qualities and power of leadership, and they honoured him with a vice-chairmanship for the sessions 1933 to 1935. He then became chairman 1935 to 1937 and again vice-chairman 1937 to 1939, when he vacated the chair. He became a vice-president of the R.I.B.A. and a member of the Executive Committee 1935 to 1937 and a member of the Board of Architectural Education during the same period. When the H. and I.W.A.A. was reorganised into Chapters, it was Ingalton Sanders who became the first chairman of its ' Central Chapter ' in 1940, a position which he continued to hold so successfully until the early part of the present year.

" In his early career he was for a short time with his father—a civil engineer, engineering contractor and a Mayor of Southampton—but he disliked contracting and decided to pursue architecture. He was educated at London University College and afterwards joined a Mr. Jurd—a Southampton architect—with whom he later entered into partnership. He carried on the practice after Mr. Jurd's death. The practice was a general one, both in quantity surveying and architecture, and Mr. Sanders played a considerable part in the development of the town, particularly in connection with the Atherley Estate, to which he was the professional adviser. In the Great War 1914-18 he was commissioned in the Devonshire Regiment in 1916 and served in France until 1918. In the greater and more recent war he was appointed Resident Engineer for the carrying out of a large camp at Crowborough in 1940.

" In his busy life he can have had little time for recreation in later years, and it can very truly be said that his chief interest was his work. But he was a lover of the countryside and its preservation and was also deeply interested in archæology and made a special study of Romanesque architecture in Pre-Conquest England (see H. & I.W.A.A. ' Blue Book,' Vol. 1939, pp. 32 and 33). In his younger days he had been a keen yachtsman and was a member of the Royal Southampton Yacht Club. He was a Freemason and one of the oldest members of the Southampton Lodge. He married twice and leaves a widow and two sons by his first wife, who are not following their father's profession.

" Personally, I shall always feel grateful to him for the encouragement he gave me in my capacity as hon. secretary H. & I.W.A.A. under his presidency, and I feel that it was not only a privilege to have served under him in this way but a definite education and benefit to have been associated with such a wonderful influence as he brought to bear so cleverly on many difficult and delicate problems. Thoughts of him in the future will always recall the happiest of memories."

Thomas Edgar Eccles [*F.*]

We regret to record the death of Thomas Edgar Eccles [*F.*] at the age of 81.

A son of Alexander Eccles, a well-known cotton merchant of Liverpool, he was educated at Uppingham and subsequently articled to the firm of Grayson & Ould, of Liverpool. On completion of his articles,

in 1890, he joined in partnership John Woolfall, the chief assistant to Grayson & Ould, a partnership which continued up to the death of Mr. Woolfall in 1919. Together they carried out numerous commissions for the North and South Wales Bank and the Midland Bank and did much domestic work in the Lancashire area. He entered into partnership with Mr. David Gordon McIntosh [*F.*] in 1919 and practised with him under the style of Woolfall & Eccles from that date until 1946.

Mr. Gilbert Fraser, M.C. [*F.*] says of Ted Eccles, as he was generally known :—" He was an enthusiastic student and a talented artist and his great joy, oft repeated, was a holiday tour in the company of his brother-in-law, the late Sir Guy Dawber, compiling a collection of sketches and expert photographs which he would later record, with racy comment, in the form of lectures to the delight of his fellow members of the Liverpool Architectural Society, of which he was the senior Fellow, ex-President and a most popular member. With his handsome presence, charm of manner, and generous friendliness Ted Eccles will be sadly missed by all who were privileged to know him."

Mr. D. G. McIntosh [*F.*], Mr. Eccles's partner in the firm of Woolfall & Eccles, Liverpool, has sent us the following appreciation :—

" With the death of T. E. Eccles, who was the doyen of Liverpool architects, at the age of 81, the profession has lost one of its oldest and most distinguished members. Educated at Uppingham, trained at the Slade Art School and as articled pupil in the offices of Messrs. Grayson & Ould, of Liverpool, he was actively engaged in conjunction with his partners, from 1890 till his death in a large and varied practice with a wide connection amongst the principal banking and insurance companies and other commercial institutions for whom he designed offices in all parts of the British Isles, as well as many country houses, churches, parish halls, schools, etc., for private clients. He was in his younger days a frequent visitor to the Continent, where he loved to pursue his natural gift for watercolour sketching of architectural subjects in the company of his brother-in-law, the late Sir Guy Dawber. He had great charm of manner and a gift for friendship which, combined with his cultured and refined nature, endeared him to all who knew him or worked with him. A man of sound judgment, his advice was often sought by his fellow practitioners, and he never failed to uphold the dignity of his profession on all occasions. His place in the hearts of those who were privileged to call him friend and counsellor can never be filled and his kindness and influence will be remembered by all, including his staff and his old friends and partners."

James Hervey Rutherford [*Ret. F.*]

We regret to record the death of James Hervey Rutherford [*Ret.F.*] at the age of 71. Trained in the office of Sir Robert Rowand Anderson, at the School of Applied Art, Edinburgh, and the Royal Academy School, he was Pugin Student in 1899, and Owen Jones Student in 1901. He started practice in 1918 with Mr. W. H. Brierley, and in 1926 went into practice with Mr. J. Stuart Syme [*F.*]. He was elected Fellow in 1925, and retired in 1939.

The firm is continuing under the title Brierley, Syme and Leckenby. Mr. Rutherford's partner, Mr. J. Stuart Syme, has sent us the following appreciation of Mr. Rutherford's career :

" James Hervey Rutherford, who died in York on 23 March, 1946, at the age of 71, was a draughtsman and designer of such exceptional skill that it would be a matter for regret if some record of his qualities and accomplishments were not preserved. My lifelong friendship and companionship with him is my excuse for attempting this tribute to his memory.

I saw him for the first time in the late eighteen-eighties, and the occasions since then when we were separated have been few in number and short in space. We met in the office of the late Dr. Robert Rowand Anderson, who had not then received the honour of knighthood, or the Gold Medal of the Institute, which came to him later. It was about the date of Rutherford's appearance there that John James Joass joined the staff at Anderson's, and I well remember the thrill which we others felt on observing his amazing feats of facile draughtsmanship. It was only a few years previous to this that Robert S. Lorimer had quitted Anderson's and gone to London to enlarge his experience in the office of Bodley and Garner.

Rutherford was born in Glasgow and educated at Edinburgh in one of the seats of education for which the city was then famous. He was first bound to an Edinburgh architect of mediocre reputation, on the death of whom he was articled to Anderson for the remaining period of his apprenticeship. It was not long after this that the School of Applied Art was founded in Edinburgh, and the credit for this remarkable achievement must be assigned almost exclusively to Anderson. The School, which eventually developed into the Edinburgh College of Art, was an immediate success, and Rutherford took full advantage of the varied opportunities of study which it afforded. The chief instructor during its early years was Frank Worthington Simon, Tite Prizeman of 1887, and if I remember aright, a Beaux Arts student. The gaining of certain prizes at the School of Applied Art gave Rutherford opportunities for sketching and measuring which enabled him to compete for and win the Pugin Studentship in 1899. This was a stepping-stone to the award of the Owen Jones Studentship in 1901. Shortly before the year 1900 he made his way to London and served for a few years in the offices of W. D. Caroe and Leonard Stokes, and eventually in the office of John Belcher, where he renewed his contact with Joass. As Owen Jones Student he visited Italy, Sicily, and Spain and returned with many exquisite drawings of some of the fine examples of colour decoration for which they are renowned.

Soon after the year 1900 he accepted the offer of a good position with encouraging prospects in the office of Walter H. Brierley at York, and this move determined the course of his future career. It can not be said that he was truly happy in his association with Brierley—their natures, outlook, and methods being too unlike to admit of this. It was not until 1918 that Brierley acknowledged the value of Rutherford's services by taking him into partnership. This association was terminated by Brierley's death in 1926, when he took me into the firm. We worked together in full accord until his indifferent health made him seek retirement in 1939. His life in York during the war years was not entirely free from anxiety, which was intensified when the city suffered a major aerial attack in April, 1942. He came to see me a few hours after the occurrence, and described how the property which adjoined his had been demolished by a direct hit, himself rudely shaken by blast, and his own house, with the accumulated artistic treasures of a lifetime, almost entirely ruined. Though outwardly calm, he must have been seriously affected, and it may be doubted if he ever entirely recovered from the effects of this alarming experience.

His best professional work is to be seen in the many large country houses which were built or altered to his designs. They include those in Welbeck for the Marquis of Titchfield, now the Duke of Portland, for Lord Grimthorpe near Malton, and Mr. Percy Stancliffe near Thirsk, for Mr. Noel Terry at York, and for the Hustler family at Acklam, in Yorkshire, for Mr. Harold Peake near Tuxford, and Colonel Hornung at Cowfold in Sussex. In addition to the restoration of many small churches in the North, he produced a clever scheme in brick for St. Chad's Church in York, and also designed a chapel for Durham College School, and one at Huyton for the Liverpool College for Girls. Other works by him are the County Hall at Northallerton for the North Riding County Council, the Central Public Library in York, a hospital at Retford, a Memorial Nursing Home at York, as well as premises for the Midland Bank at Newcastle, Sunderland, Sheffield, Wakefield, and Northallerton, and at Thirsk for Barclays Bank.

Although he was steeped in tradition, he was far from being merely a dull and slavish copyist, and his efforts are almost invariably full of freshness and vigour. His skill in the handling of colour was unmatched among all but a few of his contemporaries. He will be remembered by his friends for his modesty, his great kindliness and generosity in private life, and by his professional associates for his unswerving loyalty to the highest ideals in art and architecture, and for the fearless manner in which he expressed his view and his condemnation of anything that showed the slightest taint of unworthiness."

J. Stuart Syme [*F.*].

Henry Ebenezer Budden, C.B.E. [*F.*]

We regret to record the death of Henry Ebenezer Budden, at the age of 75. Born at Rockley, New South Wales, in 1871 ; he was educated at Bathurst Superior Public School and Newington College, Stanmore, N.S.W. After serving his articles he won the John Sulman's Studentship which took him to England for five years, where he worked for Sir Aston Webb and Thomas Colcutt, attending the Royal Academy School.

He was elected Associate in 1895 and Fellow in 1911. He travelled on the Continent to investigate and report on European theatres, as a result publishing *Modern Opera Houses and Theatres*, which was long recognised as a standard work on that subject. He also worked in America for two periods of six months each.

After his return to Australia he practised until the first world war, and although by no means a wealthy man, he abandoned his practice in 1914, and in honorary capacity and paying his own expenses undertook welfare work with the Australian Army in Egypt, Gallipoli, England and France. For this work he was awarded the C.B.E.

His principal works were the Metropolitan Water Board building, the Transport building, banks, hospitals and department stores in Sydney. His Primaru Producers Bank in Pitt Street, Sydney, was awarded the Sulman Medal and the Façade of Railway Building the R.I.B.A. Medal.

The Royal Australian Institute of Architects owes a great deal to Mr. Budden's very active service. He was a member of the New South Wales Institute and its Council for many years, serving as President in 1931-32. When the Royal Australian Institute of Architects was formed, Mr. Budden became a Fellow and represented the New South Wales chapter at the Federal Council meetings.

Throughout his life, Mr. Budden worked tirelessly for benevolent organisations and had many interests in technical education and hospital work, being Honorary Architect for the Royal Prince Albert Hospital.

Mr. Budden is survived by Mrs. Budden, five married daughters and two sons, Mr. Philip Budden, who is in the film industry, and Mr. Thomas Budden, who is serving with the A.I.F. His practice is being carried on by Mr. A. P. Nangle, practising as H. E. Budden & Nangle.

Philip Walter Birkett [*A.*]

We regret to record the death of Philip Walter Birkett, of Rudgard Farm, Potterhanworth Road, Heighington, at the age of 42, and which took place in the Westminster Hospital, London, where he had been a patient since March.

He was educated at the De Aston Grammar School, Market Rasen, and at the Lincoln Art School. He was trained in the offices of Messrs. Scorer & Gamble, Lincoln, from 1921-25, and finished his training in the offices of Messrs. George Barnes & Co., London, gaining further experience with Messrs. Adam & Gardner in London. While in London he studied at the London School of Art and the Architectural Association.

In 1927 he returned to Lincoln and became a partner in the firm of Messrs. Scorer, Gamble & Co., Bank Street, Lincoln, and when this firm was taken over in 1929 by the Lindsey County Council to form an architectural department Mr. Birkett became Assistant County Architect. When Mr. H. G. Gamble retired as County Architect to the Lindsey County Council in September 1932 Mr. Birkett succeeded him as County Architect.

His principal works include schools, hospitals and other local authority buildings, the Gainsborough Technical College, the County Maternity Home, Scunthorpe, the County Infirmary, Louth, and Brigg Girls' High School.

He was a member of the Committee on Design of School Buildings, a member of the Executive Committee of the County Architects' Association, and a technical officer appointed by the County Architects' Society on the County Councils' Association.

Mr. Birkett was a keen sportsman, keenly interested in tennis, badminton and golf.

During the 1939-45 war he was a superintendent in the Lincolnshire Special Constabulary. He leaves a widow, two daughters and an infant son.

Victor Thomas Jones [*F.*]

We regret to record the death of Victor Thomas Jones [*F.*] at the age of 82. He was trained in the office of the late Mr. A. T. Taylor [*A.*] and commenced private practice in Johannesburg in 1897. In 1901 Mr. Jones entered into partnership with Mr. W. J. McWilliams and was an active partner in the firm of Jones & McWilliams at Port Elizabeth, Cape Province, South Africa, from 1901 to 1945, specialising in interior decoration of ecclesiastical buildings.

His principal architectural works were the Harbour Board Offices, Port Elizabeth, the Port Elizabeth Club, the Grey High School, the Port Elizabeth Technical College, the Grand and Astra Theatres, Port Elizabeth, Barclays Bank, Graaffreinet, and the Lennons Laboratory at Port Elizabeth as recently as 1939.

Mr. Jones was a Life-President of the Eastern Province Society of Arts and Crafts.

Among the many legacies included in Mr. Jones's will are £1,000 to the Municipality of Port Elizabeth towards the construction of an art gallery, £500 to the Port Elizabeth Public Library, £500 to the 1820 Memorial Settlers' Association and £500 to the Eastern Province Society of Arts and Crafts.

Mr. W. J. McWilliams [*F.*], Mr. Herbert H. McWilliams [*A.*] and Mr. D. M. Brown will continue the partnership as from 1 July 1946 under the style of Jones & McWilliams.

Frank Richardson [*F.*]

We regret to record the death of Frank Richardson [*F.*] at the age of 52. He was articled for three years to Messrs. J. W. Grundy & Son [*F.*], of Ulverston, and became an assistant in that office up to the outbreak of the first world war in which he served. In 1918 he became a 1st Grade Assistant in the Admiralty Works Department, H.M. Naval Depot, Dover. From 1919-1922 he was senior assistant in the offices of Messrs. Mills & Murgatroyd, of Manchester, where he stayed for three years before going to Messrs. Forshaw & Palmer, of Burton-on-Trent, as their chief assistant. Here he designed hotels, licensed premises, cold stores, business premises, garages and much school and domestic work.

In 1923 Mr. Richardson commenced duties with the County Borough of Southport and stayed with this municipality until 1926. Whilst with the Southport Corporation he was responsible for the building of the £80,000 new Isolation Hospital and T.B. Block and for many improvements in that town's famous Lord Street and for alterations to the band enclosure, public baths, library, art gallery, police station, schools and welfare centre.

In 1926 he was appointed chief architectural assistant to the County Borough of Rotherham. After that date he was responsible for an enormous amount of municipal design and alterations in Rotherham and district, including the £100,000 new Chantry bridge, new gas showrooms, offices and workshops, over 1,500 houses, the municipal welfare centre and school clinic, bus garages and sub-stations, the Rotherham central library, alterations to the baths and abattoir, the building of the sports pavilion, park pavilion and bandstand and banks, hotels, factories, warehouses and cinemas.

From 1935 Mr. Richardson was responsible for schemes for a new maternity centre, municipal lodging house, municipal offices extensions, public assistance alterations, alterations to the Rotherham new school and bath and for the erection of a colony for mental defectives for the South-west Yorkshire Joint Board, but all of these schemes had to be held in abeyance upon the outbreak of war in 1939 and remain still uncompleted.

John Charles Paton [*A.*]

We regret to record the death on active service of John Charles Paton [*A.*] at the age of 32 He was educated at Knox Grammar School, Wahroonga, New South Wales, and served his apprenticeship with Messrs. Peddle, Thorpe & Walker, of Sydney, where he completed a six years' architectural course at the Sydney Technical College. He qualified in 1938 and came to the United Kingdom the same year. He returned to Australia in 1941, and was engaged in the Interior Department of the Commonwealth for designing and planning of various munitions factories and war works in New South Wales and Victoria. He was released by the Department in 1943, when he joined the Royal Australian Air Force, in which he trained as a navigator until being posted to England in 1944. Mr. Paton gained a commission and was a radar operative in a Lancaster aeroplane which was shot down in an operational flight over Germany on 9 March 1945.

Competitions

COMPETITION FOR THE EXTENSION OF THE FIFE COUNTY COUNCIL BUILDINGS

The County Council of Fife invite architects of British Nationality resident in Scotland to submit designs for alterations and extensions of County Buildings, Cupar, Fife.

Assessor: Mr. A. G. R. Mackenzie [*F.*].

Premiums: £500, £300 and £200.

Last day for submitting designs: 31 March 1947.

Last day for questions: 15 November 1946.

Conditions may be obtained on application to J. M. Mitchell, Esq., County Clerk, County Buildings, Cupar, Fife.

Deposit, one guinea.

COLOMBO CATHEDRAL COMPETITION

The Colombo New Cathedral Committee, in association with the Standing Committee of the Diocesan Council of the Church of Ceylon, invites architects who are qualified members of the Royal Institute of British Architects or allied bodies to submit in competition designs for the proposed Cathedral of The Holy Cross, together with Bishop's House, Divinity School, Diocesan Hall and Offices, in Colombo, on a site adjoining Buller's Road in that city. The competition is being organised by the Royal Society of Arts, London, on behalf of the Colombo New Cathedral Committee.

Assessor: Sir Giles Gilbert Scott, O.M., R.A. [*F.*].

Premiums: £500; £200; and £100.

Last day for submitting designs: 31 December 1946.

Conditions of the competition may be obtained on application to The Secretary, The Royal Society of Arts, 6 John Adam Street, Adelphi, London, W.C.2. Deposit £1.

CORRESPONDENCE

Restoration of Historic Buildings

To the Editor, JOURNAL R.I.B.A.

SIR,—The interesting correspondence on the fitness of our younger architects to engage in the restoration of historic buildings has inevitably arrived at the highly controversial question of what the work is to look like when it is done. Is it to be an exact reproduction? Is it to be in the form of an arbitrary departure from precedent in the manner of to-day?

Very few architects are practising now who were trained exclusively in one or other of the styles. The majority to be engaged upon this important work will have been trained after 1914 and will have a reasonably "contemporary" outlook. Their training will colour the results of their work.

As Mr. Godfrey says: "The date at which a building is erected has no importance compared with the measure of its power to express the aspirations of men and women living to-day." Even so, does an architectural masterpiece exist which cannot be dated or geographically placed? To-day's solution, therefore, will be acceptable in direct proportion to the sensitiveness with which the solver approaches his problem. In this connection there are some inescapable facts which must influence an architect's æsthetic sense, whatever may be his architectural prejudices.

The problem of rebuilding the major portion of a Gothic structure could only be solved by getting into the skin of the master builders who superintended the work from century to century and, moreover, of finding and organising the types of craftsmen who were successful in producing the ultimate and unsophisticated results. This would be an impossible task for obvious reasons which are fully explained by the failure of the Gothic Revival. The value of a Gothic building is mainly derived from the spontaneous and often spiritual quality of individual craftsmanship and, secondly, from the added and romantic lustre which age has imparted to it. In the case of major damage, no architect could do justice to the surviving portion by direct imitation, but as an artist his æsthetic sense would dictate the limits to which he might go to *further* the mistress art by his treatment of the new work.

On the other hand, the problem of renaissance work would generally be one of rebuilding to a highly sophisticated design, originally worked out according to well documented rules of proportion and order. Strict attention to precedent would be possible in such a case without destroying the feeling of the original, so long as drawings of the destroyed work existed and so long as accurate craftsmen could be found. A drawing-board solution would be demanded, no less dependent upon artistic sensibility, but without relying for its significance as architecture upon the free exercise of unsophisticated craftsmanship.

It is, indeed, finally a matter of taste and sensibility, and if, as Mr. Godfrey further states, "Our culture is still that of Greece and Rome," it might be argued that the best of our contemporary designers have already shown that the lessons of form and proportion left us by the classical age have at least been learned and applied. At the same time, the adventurous and dynamic spirit of the gothic builders, whose culture they have also inherited, has equally informed their construction. In this sense the spirits of Helen and Faust may yet be successfully married, even in the work under discussion.

Yours faithfully, H. A. N. BROCKMAN [*L.*].

To the Editor, JOURNAL, R.I.B.A.

SIR,—May I beg space to reply to my critics in this matter, else I may appear graceless.

First, Mr. Philip C. Harris. This, surely, is a matter of principle; can individual criticism of contemporary architecture alter it? Even if it did, can we really condemn all "contemporary" architecture as "graceless modernism"?

Some contend that "a surge of the human spirit" is with us. If it is, even if it has a "political or ideological" background, those architects cannot deny it. If that background is contentious, architects can but build for the probable outcome of that contention, else, in future, "distance will not lend enchantment to the view" of their buildings. Yes, Architects must also be Necromancers. And yet Mr. Harris is right; if this "surge of the human spirit" is indeed with us, we can cease teaching, for it will out, and just that over-mastering coherence, sincerity, and taste, for which any act of the Middle Ages or Renaissance is so remarkable, will again be inevitable.

Mr. Walter H. Godfrey perhaps misunderstands me. I can find no more living, vigorous, brilliant building than traditional architecture contemporary to its times; and nothing more dead than most of the results of the twentieth century efforts to emulate it.

Indeed, Shakespeare and others are alive and quotable; our delight in them is comparable to our delight in masterpieces of classic architecture; but no playwright would write "in the Shakespeare manner" or "in the Congreve manner"; the architectural quotation is more subtle than the literary one, witness the west towers of Westminster or "mannered" Regency.

No age can exclude its inheritance or tradition. *Chambers' Dictionary* of 1724 seems admirably to sum up its relation to contemporary architectural thought. "Close application to the study of ancient matters, and the remaining works of the ancients, together with judgment and taste to select and properly to apply the hints which such examples afford are absolutely necessary to render an architect eminent in his profession."

Can it really be said that to copy tradition is to show judgment and taste properly to apply the hints it affords?

Yours faithfully, DUNCAN WYLSON [*A.*].

To the Editor, JOURNAL R.I.B.A.

SIR,—Referring to my letter published in the R.I.B.A. JOURNAL of last May and to Mr. Ian Abbott's description of the bomb damage at Cologne, I read in *The Times* of 8 August 1946 an article giving a survey of damage done to historic buildings by bombing and fighting in Vienna. It is stated that urgent temporary repairs have *already* been undertaken at St. Stephen's Cathedral and that British help has been given for the work as well as to the restoration at Schloss-Schonbrunn outside the city. The writer of *The Times* article states that the full restoration which is planned will take many years to accomplish.

As similar work will be necessary in all the blitzed cities on the Continent and in this country, I have suggested that our architectural schools should train students who wish to specialise in the important work of rebuilding damaged historic buildings.

Yours faithfully, A. J. DAVIS [*F.*].

Mr. Lewis Mumford's Address

To the Editor, JOURNAL R.I.B.A.

SIR,—Many would be disposed to accept architects at Mr. Gerald Barry's valuation, were only some of their advocates less like the sheep in George Orwell's "Animal Farm."

It would be hard to find a sillier catch-phrase than Mr. Barry's "Will there be socialism or capitalism, peace or war?" The assumption that capitalism means war is ludicrous when one remembers how every recent war has been started by a planned state, i.e. Kaiser's Germany, Nazi Germany, Napoleon, Bismarck. It is always the capitalist state that is peace-loving. Mr. Barry makes a sweeping statement, "history has turned its back on individualism." That is true: If you face towards Russia, your back is then on America.

I often wonder when I hear of "teams" of specialists and planners whether there is anything in common amongst their members, but a taste for totalitarianism.

The methods in mind for New Towns is a case in point:—(*a*) Property owners to be forced to sell at 1939 prices; (*b*) manufacturers to be forced to put up factories where they do not want to; (*c*) presumably dwellers will either be directly forced to live in these towns or indirectly because no houses will be permitted where they desire to live; (*d*) the cost, £46 million, to be borne by taxation—compulsion again. (All this against a background of £3,500 million external debt!).

Can Mr. Barry tell me how we can expect either beauty or happiness if we are to be "planned" into it? Venice and the medieval "free" cities needed so such compulsion.

Yours faithfully, STRACEY A. EDWARDS [*A.*].

Aluminium Houses

To the Editor, JOURNAL R.I.B.A.

SIR,—In the article "Production of Aluminium Houses" appearing in the July JOURNAL, it is stated with reference to layout plans "that some local authorities are laying them out extremely badly, lumping them together in tightly packed colonies, which are bound to degenerate into slums."

Local authority architects in Scotland will read this with amusement and indignation since the truth of the matter is that the Department of Health for Scotland have the final say in all layout plans. Local authorities are not permitted to determine even the position of a dustbin without consultation with the Department of Health experts.

Yours faithfully, TOM BERTRAM [*A.*].

NOTES AND NOTICES

Members Serving with the Forces

Decorations and Distinctions

BOARD : D. G. [*A.*]. Awarded M.B.E.
BOGER : R. C. D. [*A.*], Major R.E. Mentioned in Despatches.
BUCK : BERNARD [*A.*], Capt. Indian Engineers. Awarded M.B.E.
CROWTHER : J. L., M.B.E. [*A.*], Lieut.-Col. R.E. Mentioned in Despatches.
CRUICKSHANK : STEPHEN [*A.*], Major R.E. Mentioned in Despatches.
HALL : G. T. [*A.*], Capt. R.E. (Parachute). Mentioned in Despatches.
HUTCHINSON : E. O. [*S.*], Lieut. R.E. Mentioned in Despatches.
JONES : F. M. [*A.*], Capt. R.E. Mentioned in Despatches.
LEWIS : I. J. [*A.*], Major R.E. Mentioned in Despatches.
LOMAS : C. A. [*S.*], Capt. R.E. Mentioned in Despatches.
TAMKIN : A. L. [*A.*], Major R.E. Mentioned in Despatches.
UPTON : H. C. [*A.*], Lieut.-Commdr. R.N.V.R. Mentioned in Despatches.

R.I.B.A. Final Examination, July 1946

The Final Examination was held in London, Edinburgh and Belfast from 3 to 11 July 1946.

Of the 147 candidates examined, 73 passed as follows :—

Passed Whole Examination	20
Passed Whole Examination, subject to approval of Thesis	17
Passed Whole Examination, subject to approval of remaining Testimonies of Study and Thesis	7
Passed Part I only	21
Passed Part I only, subject to approval of remaining Testimonies of Study	8
	73

74 candidates were relegated.

The successful candidates were :—

WHOLE EXAMINATION

Adamson, H. E. D.
* † Burgoine, Peter F.
Cheetham, James H.
* † Dahl, John B. S.
* Dyer, D. Lewis.
Elliott, Leonard W.
Elliott, R. Foster.
* † Foster, Kenneth E.
* Fowkes, Eric S.
* Gray, J. Ian S.
* Harris, Maurice H.
* Hill, Christopher B.
l'Anson, T. Norman.
* Kenyon, John C.
Larrington, C. T.
* Lewis, W. Stephen.
† Litherland, Sydney
Loasby, Eric.
Lock, William C.
* Lomas, Charles A.
* † Lovejoy, D. A. W.
* † Matthews, Gordon E.
Maw, Geoffrey, M.
* Morgan, Robert S.
Needes, Percival J. (*Distinction in Thesis.*)
* Noall, Norman M.
Oliver, David W.
Owen, W. Glyn.
* Poore, Michael V. F.
Pratt, Harold J. C.
* Robinson, Benjamin.
* Slack, Joseph.
Stafford, R. H. P.
Stewart, Donald R. (*Distinction in Thesis.*)
Thornley, Roy D.
* Tingey, Francis J.
* Vincent, Leonard G.
* Warren, Bernard F.
* Weaver, Edward H.
Whittle, Jack. (*Distinction in Thesis.*)
Wildgust, Albert.
Williams, G. B. A.
* † Wright, Edward S.
Wyler, Derrick R.

* Subject to approval of Thesis.
† Subject to approval of remaining Testimonies of Study.

Part I only

Adams, E. G. Y.
† Bates, S. H.
† Baxter, K. Martin.
Brandreth, G. A. W.
Buchanan, C. D.
Burrows, W. F.
Chandler, E. W.
Corsar, Peter M.
Crockett, Godfrey M.
Elliott, A. C.
Gaymer, A. D.
Grierson, Colin.
Guard, Wilson P.
Herriott, J. Morris.
Lang, Geoffrey.
† Launder, Victor C.
Lawson, John B.
† Lewis, Thomas W.
Makins, Thomas K.
Melich, Henry.
† Millner, Geoffrey F.
Mitchell, Norman B.
Morris, W. Rowland.
† Pert, Keith G.
† Riley, Eric W.
Sherwood, Arthur D.
Tallet, Margaret P. (Miss)
Watson, Alexander.
Watson, Kenneth J. V.

† Subject to approval of remaining Testimonies of Study.

The Special Final Examination July 1946

The Special Final Examination was held in London, Edinburgh and Belfast from 3 to 11 July 1946.

Of the 129 candidates examined, 58 (25 in Part I only) passed. They were :—

WHOLE EXAMINATION

Adamson, Joseph W.
Beard, Philip.
Beers, James H.
Blade, Eric A.
Burgis, Norman L. S.
Clark, John A.
Clarke, Joseph E.
Claydon, Bernard.
Cunningham, Ronald T.
Davey, Frederick W.
Dawson, Henry D.
Dodds, Kenneth.
Dolman, Mowbray.
Fleming, Robert S.
Goddard, Frederic W.
Gough, James J.
Hague, John A.
Hands, Stanley J.
Herrmann, F. H. J.
Howorth, John F.
Janes, Eric R.
King, Basil C.
McDonald, G. Gordon.
Middleton, Leonard S.
Page, Stanley G.
Parry, Mervyn H.
Passmore, Edward W.
Pritt, Albert.
Pyne, H. John E.
Secrett, Michael J. F.
Smith, John.
Thomas, E. Trevor.
Walters, William J.

PART I ONLY

Armstrong, Thomas.
Bidmead, Rowland J.
Brasier, Norman H. F.
Burbidge, Kenneth D.
Chappelle, Reginald T.
Cunningham, William P.
Daniel, Basil J.
Denyer, John H.
Fraser, R. Baird A.
Hempstock, Charles J.
Lockerbie, James N.
MacDonald, William.
Marsh, Frank H.
Morgan, Emslie A.
Perrett, F. John.
Powell, Patrick J. L.
Purcell, D. C.
Sartain, George L.
Sawyer, Peter R.
Turnbull, Denis L.
Van Raat, A. C.
Van der Steen, J. W.
Waller, E. Edward.
Weinmann, G. A.
Wright, Charles C.

71 candidates were relegated.

The Examination in Professional Practice for Students of Schools of Architecture Recognised for Exemption from the R.I.B.A. Final Examination

The Examination was held in London and Edinburgh on 9 and 11 July 1946. 11 candidates were examined and passed. They were :—

Aitchison, Robert.
Allison, James P.
Connell, Hugh C.
Connor, George S. W.
Fleming, George W.
Fleming, Thomas L.
Giffard, Colin C.
Hardy, Kenneth O. W.
Ritter, Eric E.
Stillman, John C.
Zegleman, Hyam.

Architectural Association Scholarships in Architecture

The Council of the Architectural Association announces the award of the following scholarships in Architecture at the Architectural Association School of Architecture :

The Metal Window Senior Scholarship (presented by The British Metal Window Manufacturers' Association, Ltd.) (value, £50 p.a.) to Mr. JOHN D. WELCH, of Cosham, Portsmouth, Hants.

The British Plywoods Scholarship (presented by the Association of British Plywood Manufacturers) (value, £50 p.a.) to Mr. LEWIS E. MARTIN, of Chingford, London, E.4.

R.I.B.A. Intermediate Examination

We regret that the name of Mr. Richard G. Hollis was omitted from the list of candidates who passed the R.I.B.A. Intermediate Examination held in May 1946 and which appeared in the August issue of the Journal.

Architectural Science Board Lecture

WEDNESDAY, 9 OCTOBER 1946, AT 5.45 P.M.

"TECHNICAL INVESTIGATIONS IN GERMANY"

BY M. HARTLAND THOMAS, M.A. [*F.*]

Autobahn Bridges. Autobahn Planning. Canals, River Improvements, Hydraulics. Dimensional Standardisation. Lightweight Concrete. Payment by Results. Prestressed Concrete. Shell Concrete. Steelwork. Timber. Architecture. Lattice Retaining Wall. Rubble Utilisation. Power Tools. Building Industry. Research Institutions. Miscellaneous Notes.

Copies of the lectures may be obtained two weeks before they are due to be delivered on application to the Secretary to the Architectural Science Board, 66 Portland Place, W.1. Applications may be either for single lectures or the whole series.

Department of Health for Scotland

CHIEF ARCHITECT AND PLANNING OFFICER

Applications are invited by the Department of Health for Scotland for the post of Chief Architect and Planning Officer in Edinburgh at a salary of £1,800 inclusive. The appointment is subject to the usual Civil Service conditions as to pension, holidays, etc. If the successful applicant is a pensionable official of a local authority, the Local Government and Civil Service (Superannuation) Rules, 1936, will apply.

Candidates must be between the ages of 35 and 50 on 1 September 1946, must be members of the R.I.B.A. and the T.P.I., and must have extensive experience of housing (with particular reference to layout, design, and the new forms of construction) and of town and country planning.

Forms of application with further particulars of the appointment may be obtained from the Establishment Officer (Room 31), Department of Health for Scotland, St. Andrew's House, Edinburgh 1, and must be returned to him not later than 31 October 1946. Those candidates who appear best qualified will be required to attend a Selection Board in Edinburgh or London.

County Council of the West Riding of Yorkshire

APPOINTMENT OF COUNTY PLANNING OFFICER

Applications are invited for the appointment of County Planning Officer at an annual salary of £1,500 rising by annual increments of £50 to £1,750 plus war bonus on the County Council's scale. Applicants must be corporate members of the Town Planning Institute and have had considerable experience in the preparation and administration of planning schemes. Preference will be given to persons who also possess a recognised qualification in architecture, civil engineering or surveying. The appointment will be subject to the Local Government Superannuation Act 1937 and the successful applicant will be required to pass a medical examination.

Applications in writing, stating age, qualifications and experience, accompanied by copies of three recent testimonials, must be lodged with Bernard Kenyon, Clerk of the County Council, County Hall, Wakefield, in sealed envelopes marked clearly in the top left-hand corner "County Planning Officer," not later than 30 September 1946.

City of Leeds

EDUCATION DEPARTMENT

Applications are invited for appointment as Head of the Leeds School of Architecture. Applicants must be Fellows or Associates of the R.I.B.A., the maximum salary being £1,000 per annum.

The school is a department of the Leeds College of Art, and its diplomas are recognised for statutory registration and by the R.I.B.A. and the Town Planning Institute for exemption purposes.

Particulars and forms of application may be obtained by forwarding stamped addressed envelope, foolscap size, to the Director of Education, Education Offices, Leeds, 1.

Architect for Prefabricated Aluminium Houses

We regret that the name of the consulting architect responsible for the design of prefabricated aluminium houses was not mentioned in the article upon this subject in the July JOURNAL.

The architect is Mr. A. F. Hare [*A.*].

MEMBERS' COLUMN

This column is reserved for notices of changes of address, partnership and partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than for posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

MR. A. J. BAXTER [*A.*] has been appointed Deputy Architect to Fife County Council.

MR. HUBERT BENNETT [*F.*] has been appointed Deputy City Architect and Director of Housing in Liverpool.

MR. H. ANTHONY CLARK [*L.*] has been appointed Chief Housing Architect to the Wrexham Borough Council, and will be pleased to receive trade catalogues, etc., particularly those relating to housing materials and equipment at the Borough Council Offices, Wrexham.

MR. NOSHIR B. MORENA [*A.*] has been appointed Assistant Architect to the University Scheme, Peradeniya, Ceylon, in the Public Works Department of the Government of Ceylon, and will be pleased to receive trade catalogues, etc.

MR. W. VINCENT MORGAN [*A.*] having retired from the appointment of County Architect to the Carmarthenshire County Council after nearly forty years' service, is retained as Consultant to the Carmarthenshire County Council and will be pleased to receive trade catalogues at "Hillside," Carmarthen (Carmarthen 459).

MR. A. E. WILLIAMS [*A.*] has been appointed Deputy Borough Architect to the County Borough of Newport (Mon.).

PRACTICES AND PARTNERSHIPS

MR. S. C. KERR BATE [*L.*], of 3 Field Court, Gray's Inn, London, W.C.1, has opened an office at 45 High Street, Sidcup, Kent (Foots Cray 2779).

MR. ROBERT BENNETT [*F.*], now retired from practice, announces that the practice formerly carried on by himself and Mr. Wilson Bidwell [*L.*] (deceased) is now carried on by Mr. Wilson Bidwell's son, Mr. Hugh Dryden Bidwell [*A.*], at Hall Barn, The Glade, Letchworth, Herts.

MESSRS. BURROUGH & HANNAM [*A/A.*], of 25 Orchard Street, Bristol, 1, have opened a branch office at No. 10 High Street, Chippenham (Chippenham 2462) and will be pleased to receive trade catalogues, etc.

MR. R. H. CAMERON [*A.*] has recommenced practice at 18 Queen Street, Rhyl, N. Wales (Rhyl 1146), where he will be pleased to receive trade catalogues, etc.

MR. ESME GORDON [*A.*] and MR. WILLIAM G. DEY [*A.*] are now practising in partnership at 36 Heriot Row, Edinburgh 3 (Edinburgh 27896) and will be pleased to receive trade catalogues at that address.

MR. ARTHUR T. NICHOLSON [*F.*], formerly Acting County Architect, Lancashire County Council, is now practising at 41 West Cliff, Preston (Preston 3972), where he will be pleased to receive trade catalogues, etc.

MR. GEORGE C. OLDHAM [*L.*] has taken into partnership Mr. L. E. GREGORY [*A.*] (late Major R.E.). They will practice under the style of Oldham & Gregory at Mr. Oldham's original address, "Alder Rise," Lytchett Matravers, Poole, Dorset (Lytchett Minster 247). They will be pleased to receive trade catalogues, etc.

MR. MICHAEL RYAN [*A.*], MR. JOHN B. S. PENOYRE [*A.*] and MR. S. G. KADLEIGH [*A.*], upon release from the Services, have entered into partnership and are practising under the style of Ryan and Partners, at 63, Abingdon Villas, London, W.8 (Western 1447). They will be pleased to receive trade catalogues, etc., at that address.

MR. BERNARD F. PENNELLS, M.B.E. [*L.*], has resumed practice with Mr. Arthur T. W. Goldsmith [*L.*] and they will practise as Goldsmith & Pennells at 13 Liverpool Gardens, Worthing, Sussex (Worthing 1304).

MR. S. T. PYLE [*L.*] (late Major R.E.), for many years in practice in Cirencester, has taken into partnership Mr. A. Saint [*A.*], until recently Chief Assistant Architect to the City and County of Bristol. They are practising under the style of Pyle & Saint at Thomas Street House, Cirencester, Gloucestershire (Cirencester 376).

MR. VERNER O. REES [*F.*] and MR. HUGH P. CRALLAN, M.A. [*A.*], have entered into partnership and are practising as Verner Rees & Hugh Crallan at 51 Queen Caroline Street, London, W.1. (Riverside 5905).

MR. ALAN W. RUDDLE [*F.*] has taken into partnership Mr. W. C. Wilkinson and the practice will be continued under the title of Ruddle & Wilkinson at Long Causeway Chambers, Peterborough (Peterborough 2166).

MR. W. G. RYMILLS [*A.*] (late Major R.E.) has commenced practice at 5 Church Green, Witney, Oxon. (Witney 394), where he will be pleased to receive trade catalogues, etc.

MR. C. A. F. SHEPPARD [*L.*], having terminated salaried employment, has commenced private practice at "Seafield," Seafield Road, Seaview, Isle of Wight, where he will be pleased to receive trade catalogues, etc.

MR. J. SMITH [*A.*] has commenced practice at 1 Church Street, Heckmondwike, Yorkshire (Heckmondwike 295), where he will be pleased to receive trade catalogues, etc.

MR. C. S. SPENCE, B.A. [*A.*] and MR. G. L. PRICE [*A.*], on release from the Forces, have entered into partnership and will practice under the style of Spence & Price for the present at 15 Haldane Terrace, Jesmond, Newcastle-upon-Tyne. They will be pleased to receive trade catalogues, etc.

MR. H. R. SURRIDGE [*L.*] has taken into partnership Mr. Edward W. Cowell [*A.*] (late Major R.E.), who has been associated with the firm of Gotch, Saunders & Surridge for the last fifteen years. The name of the firm will continue to be Gotch, Saunders & Surridge.

MR. D. G. THORNLEY [*A.*] would be pleased to receive trade catalogues, etc., at 30 Regent Street, Nottingham.

MR. DENIS WINSTON, M.A., B.Arch. [*A.*] will be pleased to receive trade catalogues and up-to-date information relating to building materials, methods, services and equipment, addressed to him at the Borough Architect's Office, Civic Centre, Southampton.

CHANGES OF ADDRESS

SIR HERBERT BAKER & SCOTT have removed from 2 and 3 The Sanctuary, Westminster, to Church House, Great Smith Street, Westminster, S.W.1 (Abbey 4493).

CARVER, SYMON & ROSS, of Dundee, Arbroath, Montrose and Perth (Mr. D. Ross [*F.*], Mr. A. J. Cruickshank [*A.*], Mr. M. Lumsden [*A.*] and Mr. J. Watson Ritchie [*A.*]) have removed from 62 Seagate, Dundee, to 9-10 Tay Square, Dundee (Dundee 6071). The business conducted by Mr. A. J. Cruickshank [*A.*] at 22 King Street, Perth, is now amalgamated with the above firm and will be styled Ross & Cruickshank, with offices at 22 George Street, Perth (Perth 2704). The firm will be pleased to receive trade catalogues, etc., at the above addresses and also at 75 High Street, Arbroath (Arbroath 3167).

MR. LIONEL F. R. COOTE [*A.*] has removed from "The Old Cottage," Bladon, and is now practising at 10 Webley Terrace, Woodstock, Oxfordshire.

MR. J. L. LUMSDEN [*S.*] has removed to 77 McDonald Road, Edinburgh 7, and will be pleased to receive trade catalogues, etc., at that address.

MR. CLIFFORD W. SHRIMPLIN [*A.*] has removed from 5 Cardiff Road, Luton, Beds., to Prudential Chambers, Upper George Street, Luton (Luton 1436) and will be pleased to receive trade catalogues, etc.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

ARCHITECT's long-established practice in large South Coast town for immediate sale by executors; also plans, equipment and tenancy of office.—Apply Box 295, c/o The Secretary, R.I.B.A.

ASSOCIATE, A.A.Dip., age 35 (late Major R.E.), seeks partnership or post with view to partnership in established firm S.W. England, preferably Exeter or Plymouth. Wide general experience. Capital available.—Apply Box 301, c/o The Secretary, R.I.B.A.

ASSOCIATE (age 32), with good experience Local Authorities housing estate layout and design, war damage and general practice, desires partnership. No capital available, but enterprising and quick worker.—Apply Box 298, c/o The Secretary, R.I.B.A.

ASSOCIATE (late Major R.E.) seeks partnership or post with view to partnership in S.W. England, preferably Cornwall. Twenty years' wide experience.—Apply Box 309, c/o The Secretary, R.I.B.A.

ASSOCIATE (age 41), just released from the Forces, R.N.V.R., seeks partnership in established office, preferably South Coast. Capital available.—Apply Box 293, c/o The Secretary, R.I.B.A.

ASSOCIATE (Scot), age 35 (late Major R.E.) seeks partnership or appointment leading to partnership in North Scotland.—Apply Box 292, c/o The Secretary, R.I.B.A.

ASSOCIATE (External Finals), age 36, A.M.T.P.I., wishes appointment of responsibility with view to early working partnership. Nineteen years' real experience. Energetic Scotsman. Provincial area preferred.—Apply Box 294, c/o The Secretary, R.I.B.A.

FELLOW has vacancy for Associate as junior partner in old-established and busy practice in W.R. of Yorkshire.—Apply Box 300, c/o The Secretary, R.I.B.A.

PARTNERSHIP offered in West Country town practice. Applicant must be fully qualified and experienced.—Apply Box 306, c/o The Secretary, R.I.B.A.

WANTED AND FOR SALE

FOR SALE. Set of drawing instruments by Hall, of London. Nine pieces with ancillaries complete, all set in mahogany box, price £10.—Apply Rev. J. W. Timms, Buckfastleigh Vicarage, Devon.

FOR SALE. "Dumpy" level with tripod and staff, 2 drawing-boards with ebony inset, 1 mahogany stand for drawing-board, 1 ivory architect's scale, 7 boxwood scales, various compasses.—Apply Box 305, c/o The Secretary, R.I.B.A.

FOR SALE. Mathematical instruments—13 pieces complete in case by "Riefler." perfect condition.—Apply, with offers over £7 10s., to Box 307, c/o The Secretary, R.I.B.A.

MEMBER wishes to purchase *Architectural Reviews*, January, April, June, July 1944; January 1945 and March 1946.—Apply, stating price, Box 308, c/o The Secretary, R.I.B.A.

WANTED. *Architectural Review*, May 1925 (illustrating Britannic House), *Houses and Gardens*, by Sir Edwin Lutyens (1913-1914 editions only), *The Builder*, illustrating work (or designs) by Sir Edwin Lutyens.—Apply Box 304, c/o The Secretary, R.I.B.A.

WANTED by Associate, *County of London Plan 1943* (Macmillan).—Apply Box 297, c/o The Secretary, R.I.B.A.

WIDOW of a former Student desires to dispose of his drawing instruments and equipment; also a number of his architectural books.—For full particulars apply Mr. Fredk. W. Mountford, 36 Holmesley Road, Honor Oak Park, London, S.E.23.

ACCOMMODATION

FELLOW offers a share of his office near Charing Cross to young architect.—Apply Box 302, c/o The Secretary, R.I.B.A.

OFFICE space available, Central London, for young architect prepared to assist Fellow with view to partnership. Good prospects later.—Apply Box 299, c/o The Secretary, R.I.B.A.

TO LET. Member can sublet unfurnished offices, about 425 sq. ft. or 850 sq. ft. in Great Ormond Street, London, W.C.1.—Apply Box 303, c/o The Secretary, R.I.B.A.

MEMBERS RELEASED FROM THE SERVICES

MR. S. CRUICKSHANK [*F.*], 11 Hammersmith Terrace, London, W.6.

MR. F. R. ELLERAY [*A.*] (late Major), formerly of Densems Chambers, 39 High Street, Northwich, now of Compensation Board Buildings, Brockhurst Street, Northwich (Northwich 4826).

MR. L. E. GREGORY [*A.*] (late Major R.E.), c/o Dr. J. P. Longworth, 361 Whitegate Drive, Blackpool, Lancs. (Manton 393).

MR. SIDNEY C. HALBRITTER [*A.*], 91B Albert Bridge Road, London, S.W.11 (Battersea 0455).

MR. RONALD HARDY, M.B.E. [*A.*] (late Major R.E.), 135 Gloucester Court, Kew Road, Kew, Surrey.

MR. J. S. HOGG [*A.*] (late Major R.E.), Architect's Department, Northumberland County Council; private address 28 Polwarth Road, Gosforth, Newcastle-on-Tyne 3.

MR. R. KIRTLEY KINTON [*L.*] (late Major R.E.) has commenced practice at his temporary address, 20 Monsell Drive, Leicester (Leicester 32329).

MR. J. L. LUMSDEN [*S.*], 77 McDonald Road, Edinburgh, 7.

MR. R. MCGUIRE [*A.*], c/o County Architect's Department, Lancashire County Council Offices, Preston; private address 14 Kilruddery Road, Broadgate, Preston, Lancs.

MR. MAYNARD H. POWELL [*A.*], 1 Central Chambers, Wood Street, Stratford-upon-Avon (Stratford-on-Avon 2144).

MR. DONALD ROSS [*F.*] (late Lieut.-Col., G.L.), 9-10 Tay Square, Dundee.

MR. S. PENN SMITH [*L.*], 27 Friar Lane, Leicester (Leicester 22184).

MR. JOHN WILKINSON [*A.*] (late Capt. R.E.), 4 Barn View Villas, Coleraine, Co. Derry, N. Ireland.

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(Tel.: WELbeck 5721.)